







CITY DOCUMENTS.

MAYOR'S ADDRESS

TO THE CITY COUNCIL,

CITY GOVERNMENT,

ANNUAL REPORTS, ETC.,

FOR THE YEAR 1894-95.



NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

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1895—CITY DOCUMENT No. 1.

ADDRESS
OF
DAVID L. PARKER,
MAYOR OF NEW BEDFORD,
TO THE
CITY COUNCIL,
January 7, 1895.



NEW BEDFORD:
E. ANTHONY & SONS, Incorp., CITY PRINTERS.
1895.

ADDRESS.

Gentlemen of the City Council:—

By the favor of the citizens, we have been selected to take charge of their interests for the coming year; the several positions that we assume are places of honor and responsibility and for the trust thus reposed in us we should return our sincere thanks; with your permission, therefore, I now express your gratitude, and most certainly my own, for the confidence of the people as expressed at the polls.

We are to be associated together, thirty-one of us, to perform this duty; let me express the hope at the outset that harmony may prevail in our councils, that we may all try to make the administration of 1895 as successful, if not more so, than any that has gone before it.

We need not and do not expect to think alike on all the various and often difficult questions that are sure to arise as the year rolls on, but if we have respect for the opinions of our fellows and earnestly endeavor to get at the truth, we may hope to secure results that will be of value to the city and satisfactory to our constituents.

Political life is a fleeting and transitory thing; we take an official part in municipal affairs for a year or a few

years at the most, and then give place to others. We are soon forgotten, but the record of our work goes down to history; let us then devote ourselves to our duties with such fidelity that all may see that we are not here to advance our personal interests nor unduly elated with a sense of our self-importance, but appreciate that we are chosen to transact the city's business in a sensible and straightforward way.

Municipal government is a business matter; the largest corporation on the banks of the Acushnet river is the city of New Bedford; we are its board of management; the trend of thought in these days is to regard the government of our cities more and more as a matter of business, and less and less as a matter of politics. We should be as economical as is consistent with the progressive times in which we live. We have nothing to do with the past, except to find out from the lessons of experience what is worth preserving, and what ought to be discarded; our faces are turned toward the future and we must remember that so far at least as this year is concerned, New Bedford's future is largely entrusted to our care.

I do not intend to weary you with many details or to make my remarks very extended; my inexperience in city affairs leads me to prefer to discuss briefly only a few topics of special interest at this time and to refer you for further information to the reports for 1894 of officials and departments which will soon be submitted.

During the year I may make other suggestions to the council on any subject before us for action or call to your notice any matter which seems to demand your attention.

In preparing this address I have drawn more freely for information and suggestions upon City Treasurer Hathaway, Superintendent Coggeshall of the water department and Superintendent Hatch of the school department, but all the city officials have been ready to assist and I take pleasure in acknowledging their courtesy.

FINANCIAL.

From statements furnished by the city treasurer I am enabled to present to you the following interesting facts relative to our present financial condition :

TAXES.

The assessments for the year 1894 were for the following named purposes :

State tax,	\$35,860.00	
County tax,	67,796.46	
City tax,	699,176.80	
Overlay,	25,711.57	\$828,544.83
Collections,		789,719.92
		<hr/>
Balance uncollected,		\$38,824.91

About $4\frac{6.8}{100}$ per cent. of the whole tax now remains unpaid. The assessed value of real and personal property in 1894, the first made under the new platting system, was \$51,434,925, an increase over 1893 of \$6,959,830, reducing the rate from \$17.50 in 1893 to \$15.60 in 1894.

A large proportion of the taxes now remaining unpaid are for polls, 7,200, or more than 50 per cent. of the whole number taxed appearing as delinquents at this time, due largely to a change in the law whereby

a person is not required to pay a poll tax as a prerequisite to vote.

The sum received from the state for corporation and other taxes was \$61,694.04, about \$15,000 less than the previous year.

RECEIPTS AND EXPENDITURES.

The receipts and expenditures for the year, including balance in the treasury Jan. 1, 1894, have been as follows :

Balance Jan. 1, 1894,	\$8,416.28
Taxes 1894 and previous years,	660,462.79
Liquor licenses,	60,842.00
Corporation and other taxes from state,	71,654.96
Temporary loan,	410,000.00
Loan on special appropriations of 1894 (due May 1, 1895),	75,000.00
Improvement and sewer bonds and premium,	125,195.39
Refunding water bonds and premium,	128,436.00
Water bonds for further water supply and premium,	218,632.00
Water rates and other sources,	217,444.77
	<hr/>
	\$1,976,084.19

EXPENDITURES.

Temporary loans,	\$410,000.00	
Loan on special appropriations, 1893,	80,000.00	
State, one-quarter liquor license receipts,	15,210.50	
Permanent debt, principal and interest,	234,223.73	
Sinking funds,	90,451.39	
Special appropriations, 1893,	56,171.80	
Coggeshall street bridge,	30,000.00	
Other city purposes,	876,638.99	1,792,696.41
		<hr/>
Balance Jan. 7, 1895,		\$183,387.78

The city owes the water fund this balance and about \$35,000 more, which will appear later in the debt statement.

Under chapter 171 of the acts of the legislature of 1894, entitled "An act to authorize the city of New

Bedford to refund a portion of its water debt," water bonds to the amount of \$120,000 were issued to refund a like sum, that fell due the first of October last; this, together with the premium, is included in the above receipts.

It is estimated that the receipts for 1895 from corporation and other taxes, liquor licenses, etc., to be placed to the credit of unappropriated funds, as required by city ordinance, will be \$160,000.

APPROPRIATIONS.

The appropriations for the year were as follows:

GENERAL APPROPRIATION.

Permanent city debt,	\$95,000.00	
Sinking funds,	71,120.00	
Special appropriations, 1893,	56,171.80	
Coggeshall street bridge,	30,000.00	
Municipal departments,	446,885.00	\$699,176.80

SPECIAL APPROPRIATIONS.

Acushnet Avenue school house addition,	\$2,895.60
Board of health,	4,500.00
Central police station,	2,700.00
Cemeteries,	150.00
Engine 8,	3,510.00
Engine house 8, bell,	800.00
Engineering department,	1,900.00
Engine house 8,	431.12
Fourth and Madison streets school house,	7,639.57
Fire department,	17,500.00
Highways and streets,	30,000.00
Incidentals,	853.00
Lighting the streets,	10,000.00
New Bedford and Fairhaven bridge,	1,500.00
Police department,	12,500.00
Public schools—Repairs to buildings,	700.00
Pay of teachers,	29,000.00
Incidentals,	14,100.00

Public schools—Fuel,	2,100.00	
Poor department,	11,500.00	
Repairs to city property.	5,700.00	
School house lot, Clark street,	6,000.00	
Sewers—Acushnet avenue,	1,150.00	
Belleville avenue,	1,200.00	
Beetle street,	2,000.00	
Bonney street,	25,000.00	
Chancery street,	150.00	
Copper street,	2,000.00	
Clark street,	2,000.00	
Elm street,	350.00	
Front and Commercial streets,	1,996.00	
Mitchell street,	1,200.00	
Maple street,	2,000.00	
Purchase street,	1,575.00	
Washburn street,	1,500.00	208,100.29
Total appropriations, 1894,		\$907,277.09
Special appropriations, as above,		\$208,100.29
Transfer from unappropriated funds,	\$92,500.00	
Balance special appropriations, 1894,	6,000.00	98,500.00
Amount to be provided for in 1895,		\$109,600.29

The net valuation of 1894, on which the appropriation for municipal purposes is based, is \$51,183,175. This amount, at \$12 per \$1,000, will enable the city council to appropriate \$614,198, a sum more than sufficient to provide for the several departments for the year, this being, of course, exclusive of city debt, state and county taxes. Should the whole amount named be appropriated it would tend to increase the tax rate, which I hope we may avert. I therefore take the liberty to recommend that a large portion of the receipts that may be derived from corporation taxes be used to reduce the appropriations above referred to and thus lessen the burdens of the taxpayers.

An appropriation of \$1,200,000 for the increased water supply to be provided for by the issue of bonds (\$200,000 of which have been issued) is not included in the above statement.

MUNICIPAL DEBT.

The debt of the city at this date is as follows :

Water bonds 7s,	\$100,000.00	
Water bonds 6s,	200,000.00	
Water bonds 5s,	100,000.00	
Water bonds 4s,	140,000.00	
Water bonds 4s, new supply,	200,000.00	\$740,000.00
Park loan 4s,		100,000.00
Improvement bond 6s,	\$180,000.00	
Improvement bonds 4s,	476,000.00	
Improvement bonds 3½s,	140,000.00	796,000.00
Sewer bonds 4s,	423,000.00	
Sewer bonds 3½s,	75,000.00	498,000.00
Gross bonded debt,		<u>\$2,134,000.00</u>

TRUST FUNDS.

S. A. Howland Educational Fund water debt,	\$100,000.00	
Library funds,	16,100.00	
Jonathan Bourne prize fund,	1,000.00	
Cemetery funds, for care of lots,	25,000.00	142,000.00
		<u>\$2,276,000.00</u>

Loan on special appropriations, 1894, due		
May 1. 1895,	\$75,000.00	
Balance of special appropriations,	34,600.29	
Amount borrowed from water works for		
city purposes,	35,244.22	144,844.51
		<u>144,844.51</u>

Total debt, permanent, temporary and trust funds, \$2,420,844.51

DEDUCTIONS—ASSETS.

Due from state, soldiers' aid,	\$10,300.00	
Due from state, corporation taxes,	6,000.00	
Sundry bills due city,	15,500.00	
Taxes collectable,	32,000.00	
Sinking funds,	382,500.00	446,300.00
Net city debt Jan. 7, 1895,		<u>\$1,974,544.51</u>

The balance of cash in the treasury as given in the foregoing statement is \$183,387.78; add to this sum \$35,244.32, the sum borrowed from the water works for municipal purposes. It gives to the water department for further water supply \$218,632, the income from the sale of bonds issued for that purpose.

The average assessed value of the city for the three previous years, as given by the assessors, is \$45,230,238. Under the law, as it now exists, our limit of indebtedness (exclusive of water debt, park loan and sinking funds) is two and one-half per cent. of the above valuation.

Two and one-half per cent. of average valuation,	\$1,130,755.95
Net debt, exclusive of water debt, park loan and sinking funds,	<u>911,500.00</u>
	\$219,255.95
Less special appropriations of 1894, to be provided for,	<u>109,600.29</u>
Short of the debt limit,	\$109,655.66

Bonds to the amount of \$110,000 will mature in 1895 as follows:

April 1, Improvement bonds 4s,	\$80,000.00
Oct. 1, Improvement bonds 6s,	10,000.00
Oct. 1, Water bonds 6s,	<u>20,000.00</u>
	\$110,000.00

The improvement 4s (\$80,000) will be paid from sinking funds, water 6s (\$20,000) from water rates, as provided by ordinance, leaving improvement 6s (\$10,000) only to be provided for by taxation.

Following is a statement of the net debt from 1890 to 1895 inclusive:

January, 1890,	\$1,338,574.43
January, 1891,	1,370,845.20
January, 1892,	1,627,218.63
January, 1893,	1,699,958.52
January, 1894,	1,835,278.65
January, 1895,	1,974,544.51

WATER WORKS.

It has been decided by our predecessors in office to make an extensive addition to the water works for which an appropriation of \$1,200,000 has been made. This is the largest amount ever appropriated by the city council at one time.

The action was deemed wise because the present plant is now being taxed to its extreme capacity in order to supply our daily needs. Twenty-eight years ago the work of obtaining a supply of fresh water for manufacturing and domestic purposes was first begun. After an exhaustive examination of different schemes it was decided that the Ansel White pond, seven miles from the city, was the nearest point from which a sufficient and satisfactory supply could be obtained; accordingly what is now known as our storage reservoir was created by a dam thrown across the valley about half a mile below the old mill pond dam.

The water flows by gravity from this point to the city through an egg shaped brick conduit four by three feet. Its grade is slight, being less than four feet for the entire distance, consequently the water flows through it very slowly, requiring about five hours to reach the receiving reservoir on North Purchase street, opposite the pumping station. The water is then forced to the

distributing reservoir at Mt. Pleasant, from which point it is distributed to all parts of the city.

The demand for water has increased much more rapidly than was predicted in those early days, pumping machinery has been added and larger mains placed as needed; so that the plant is now supplying about six million gallons daily.

In 1886 the failure of the storing reservoir to respond to the increasing demand compelled a connection with Little Quittacus pond, eleven and one-half miles from New Bedford. A ditch was excavated one and one-half miles long, through which the water flows into one of the feeders of the White pond.

When the problem for an increased supply was considered, the first suggestion was that a large gravity conduit should be constructed from Little Quittacus pond on a somewhat parallel line to the present structure; this plan was quickly discarded as too costly and not providing for the high service needed in the elevated portion of the city, where many of our citizens are now unable to obtain a supply upon the upper floors of their dwellings. This plan would also fail to provide for the Rockdale region, which is from ten to fifteen feet higher than the water level in Mt. Pleasant reservoir.

It was evident that whatever plan was adopted the supply must come from the Lakeville ponds. As a result of the investigations of our expert engineers and in anticipation of the present situation, the city has obtained the right from the legislature to use the water

from both Little and Great Quittacus, which will provide an almost inexhaustible supply.

The plan selected by the water board from a number of studies made by them has been submitted to the city council of 1894 and approved. The board has been directed to proceed with the work and to make quarterly reports to the council in relation to it.

This plan calls for the connection of Great and Little Quittacus with a large pipe, the location of a pumping station near Little Quittacus, by which the water will be forced up through a four foot conduit some eight miles in length to a large reservoir near Faunce's corner, Dartmouth. This reservoir will hold several days supply, and its level is to be 214 feet above tide water, or sixty feet above the level of the Mt. Pleasant reservoir. From Faunce's corner a large main will connect with the present distributing system of the city.

This plan will increase the pressure upon our mains some twenty-five pounds, will enable as good a hydrant stream to be played at Sixth street as can now be obtained on Front street, and will furnish a good supply to the Rockdale heights whenever the mains are extended in that direction. It is to be equipped at first for a ten million gallon daily supply, but its various parts are to be of ample size to eventually double its capacity.

It is unfortunate that we have to go so far for our water, as it entails a large expense, but there is no help for it; it is impossible to carry the city to the ponds, therefore the only alternative is to bring the ponds to the city by the best attainable modern system.

But we are indeed fortunate in securing such an ideal supply, both as to quality and quantity. Both ponds contain water of exceptional purity into which no flow of a contaminating nature enters. Its color and taste are much more attractive than that at present supplied, and although the cost is heavy, we shall have when completed, say three years hence, a perfect system, equal to all our requirements for years to come.

BOARD OF PUBLIC WORKS.

Ever since this board was created it has been a subject of discussion before the people, both as to the methods of administration and as to the extent of its power.

As a result of my own experience as a member of the board, I believe that its establishment was wise, and that the board should not be abolished unless the whole scheme of our municipal government is to undergo a radical change.

In whatever form the powers of the board are to be exercised, certainly no doubt should exist in the minds of the people as to the extent of these powers, and in view of the contradictory opinions now held on this point, I trust that some means may be found at an early date by which all uncertainty may be set at rest.

The efficiency of any such board is due in a large measure to its permanent character and the accuracy of a continuous record, therefore too great stress cannot be laid upon the importance of having the records of this board accurate and complete.

ASSESSMENT OF TAXES.

This department has been criticised for years by some of our citizens; the chief idea advanced being that the valuations of real estate should be thoroughly revised, and that unoccupied and unimproved land has been rated far below its true value.

With the introduction of new blood on the board of assessors an earnest effort was made during the past summer to revise and equalize valuations, and this has been materially assisted by that part of the platting system already completed.

To attempt a complete revision of valuations in one year was a task that might appall even the stoutest heart; its detail necessitated an immense amount of labor, and the midnight oil has burned in the assessors' office for weeks at a time. It was a task requiring patience, judgment, and more than all, back-bone; and while crudities and errors have crept in, owing to lack of time, on the whole the verdict of the people is that it was a move in the right direction.

It has been suggested, however, that in some cases the value placed on unimproved land was so high as to cause injustice, and I trust that the subject matter of that complaint will receive the careful and considerate attention of the assessors.

Many citizens whose taxes have been increased say that their principal fear is that the increase of the valuation to \$51,000,000 will lead to extravagance on the part of the city government.

I hope your acts will show that such doubts are unfounded; that the present council is a conservative body, which will not make needless appropriations merely because more money can be raised by taxation, and the city's capacity to obtain loans and issue bonds has been increased.

SCHOOLS.

The school department has grown very rapidly within the past few years. This is due to the rapid growth of the city and also the introduction of new lines of work into the curriculum to meet the modern demand for a more practical education.

A comparison between the statistics of the present year and five years ago shows an increase in the number of pupils of 1,315 and of teachers 39; during this period there was expended for school house sites and new school houses \$200,187.12.

This is a large amount. While all the school houses that have been built have been needed, the cost of several has been excessive, when the many demands that are necessarily made upon the city treasury are considered. It is far better to have school buildings of simpler external appearance, but well planned as to light, heat and ventilation.

The department is in need of a new school house in the northwest part of the city. A lot has been purchased on Clark street, and plans for a new building considered by last year's council.

If you decide to build this house I hope an effort will be made to have it ready for occupancy in September—

it can be done if an early start is made and work pushed continually during the summer; as you know the erection of city buildings has often been delayed till cold weather, when any kind of building, and especially brick-laying, is prosecuted at a disadvantage.

New Bedford has been fortunate in having a school board which takes great interest in promoting the welfare of the schools and faithfully labors to keep them in the van of progress; the exertions of the committee and of Superintendent Hatch are much appreciated by the public and we take pride in the many intelligent and useful citizens among us who show the results of their careful training.

In common with many citizens, I am much pleased to see the practical turn educational matters are taking in New Bedford. The introduction of manual training, cooking, etc., into the school course is commendable and I feel sure is regarded with favor by parents and pupils alike. In view of the fact that cotton manufacturing is the principal business of the city, and that so many of our young men and women turn to the mills as a means of support, I suggest to the committee to consider the advisability of employing an instructor in the manufacture of textile fabrics; teaching in this line is common in European manufacturing centers, and is said to produce good results.

FIRE DEPARTMENT.

This department has long been the pride of our citizens, its ability to cope with fire is second to no city of our size in the country.

The only recommendation I have to make is that a chemical engine or a combination engine and hose reel be purchased. These engines are very effective in putting out small fires and avoid in many cases large damage by water.

POLICE.

The duty of this department is to preserve order, enforce the laws and protect our homes day and night; it is no wonder then that the people of New Bedford have always shown great interest in its work.

The members of the force are brought into daily contact with the people, and the police record, whether satisfactory or otherwise, whether for good or evil, is mirrored in the court reports, as published daily in the local press.

It is not too much to say that not only the people, but many members of the force as well, are dissatisfied with the present status of this department; the two leading issues of the late municipal campaign were parks and police; we have received orders direct from the people in no uncertain tones—"Go slow with park expenditures and improve the efficiency of the police force."

I do not understand that this order, so far as it relates to the police, refers so much to quantity as it does to quality; it is not so much that more officers are demanded, but rather the enforcement of strict discipline and a systematic and intelligent plan of action under which the department as a whole can be made harmonious and effective. Each member should be made to feel confident that he will be fully and heartily sustained in

the faithful performance of duty, and that negligence and carelessness, to say nothing of graver faults, will not be tolerated.

I hope as the ex-officio head of the police force to be able, with the support and assistance of the committee on police, to take such steps early in the year as shall contribute to a higher state of discipline and efficiency in this important department.

PARKS.

The question of parks and the advisability of spending large amounts of money in their purchase, development and care, is one that has been agitated more or less since the issue of bonds was made for park purposes; while there is some public sentiment in favor of park expenditures on a limited scale, I believe that a large majority of our citizens are of the opinion that no further large appropriation should be made for that purpose at this time; there may be special reasons why small pieces of land, desirable on account of their relative location, should be acquired by purchase; but certainly no appropriation or bond issue amounting to \$200,000, or anything like it, should be made this year or will be if any influence of mine can prevent it.

Within three years the net debt of the city will be \$3,000,000, or more, if we do not spend another dollar for parks. For myself, I think they are a luxury that should not be indulged in while things more necessary and of smaller cost are neglected. It would seem to the average citizen, for instance, that a few hundred dollars

of the park money spent last year could have been used to advantage in making this historic hall clean and presentable. No stranger would think that the grounds around this building belonged to a wealthy city.

In administering to the welfare of the citizens it is not always well to devote attention to objects which require vast expenditures, and neglect essential improvements because they can be cheaply obtained. It is not necessarily the most elaborate plan or largest expenditure that produces the most enjoyment and happiness.

CITY DOCUMENT.

The City Document, which is a collection of all the municipal official reports and figures, has been issued so late in the year as to detract from the value of the publication; this year it was not ready in paper covers until the middle of December, and the bound copies are not yet received. I wish to call the attention of the city officials and the printing committee to be appointed to the desirability of having the document printed earlier; in these modern days nobody cares to read a book of facts a year old; there is no good reason why the City Document should not be out by August at the latest.

CONCLUSION.

In conclusion I ask for your hearty co-operation in the transaction of the city's business; in some respects this will be a good year to practice economy. New Bedford has grown rapidly the past ten years, and this has been the excuse given for the great increase in our city debt.

This year the outlook now is that our population will not be materially increased, and that the calls for new improvements, aside from the new water system, and perhaps one school house, will not be great; we ought, therefore, it seems to me, to make an effort to pay our bills, except for the extension of the water supply, from the receipts of the year, and the fact that so large an amount is needed for water should lead to economy in other directions.

We pay too much attention to the debt limit and too little to the actual net debt; we go on increasing our debt every year, apparently contented if we are a few thousand dollars inside of the limit prescribed by the state laws.

I do not believe in spending the people's money except for things imperatively demanded; if we can accumulate a surplus there are demands coming that will use it up. The New Bedford and Fairhaven bridge looms up before us, before many years we must have new quarters for our library if not a new city hall, the new school house and the new engine house we have ever with us. There is therefore no need for inventing schemes to spend money; the demands will come and knock at our door without urging.

We will probably make mistakes; it is the lot of humanity, but if the people whom we serve can see, taking our act in the aggregate, right intent and unselfishness on our part, it will be a monument to the city government of 1895 with which I, for one, will be perfectly satisfied.

CITY GOVERNMENT

1895.

MAYOR.

HON. DAVID L. PARKER.

ALDERMEN.

Ward 1.—LUTHER G. HEWINS, JR.

Ward 2.—HENRY C. HATHAWAY.

Ward 3.—JOHN H. BARROWS.

Ward 4.—WILLIAM R. WEST.

Ward 5.—JAMES ARTHUR TAYLOR.

Ward 6.—SAMUEL E. BENTLEY.

CITY CLERK.

DANIEL B. LEONARD.

ASSISTANT CITY CLERK.

WILLIAM S. COOK.

CITY TREASURER AND COLLECTOR OF TAXES.

JAMES H. HATHAWAY.

CITY AUDITOR.

GEORGE W. PARKER.

CITY MESSENGER.

AUGUSTUS D. PIPER.

COMMON COUNCIL.

PRESIDENT.—OLIVER PRESCOTT, JR.

Ward One.

HENRY T. ASHLEY,
STEPHEN L. FINNELL,
MORTIMER McCARTHY,
ALBERT WILDE.

Ward Four.

CHARLES E. BROWNELL,
ARTHUR W. FORBES,
CHARLES H. FULLER,
JOHN A. TAYLOR.

Ward Two.

ARTHUR L. BLACKMER,
ROBERT S. LAWTON,
EDWARD G. REYNOLDS,
JOSEPH A. WRIGHT.

Ward Five.

CHARLES H. L. DELANO,
THOMAS S. HATHAWAY,
OLIVER PRESCOTT, Jr.
HARRY B. WOOD.

Ward Three.

CHARLES H. ADAMS,
GEORGE P. BAILEY,
CHARLES W. KNIGHT,
LEWIS E. MILLIKEN.

Ward Six.

JASON L. BALLOU,
JAMES C. PLATT,
JOHN F. ROGERS,
JOSEPH C. WARREN.

CLERK.—WILLIAM A. MACKIE.

STANDING COMMITTEES OF THE BOARD OF MAYOR AND ALDERMEN.

Police.—The Mayor and Aldermen Bentley and Taylor.*Licenses.*—Aldermen Hathaway, Taylor and Barrows.*Burial Grounds.*—Aldermen Taylor, Hewins and Bentley.*Enrollment.*—Aldermen Hathaway, Hewins and West.*Soldiers' Aid.*—The Mayor and Aldermen Hewins and Bentley.

JOINT STANDING COMMITTEES OF THE CITY COUNCIL.

Finance.—The Mayor, and Alderman Barrows, the President of the Common Council, and Councilmen Wilde, Blackmer, Adams, Brownell and Ballou.*Audit.*—Aldermen Barrows and Hewins, and Councilmen Milliken, Delano and Wright.*City Property.*—Aldermen West and Bentley, and Councilmen Reynolds, Blackmer and Hathaway.

Fuel.—The Mayor, and Alderman Bentley, and Councilmen Lawton, Taylor and Forbes.

Education.—Aldermen Hewins and Hathaway, and Councilmen McCarthy, Knight and Taylor.

Fire Department.—Aldermen Taylor and Barrows, and Councilmen Lawton, McCarthy and Wood.

Roads, Bridges and Sewers.—Aldermen Hewins and West, and Councilmen Milliken, Platt and Forbes.

Charities, Almshouse and the Poor.—Aldermen Hathaway and Hewins, and Councilmen Rogers, Finnell and Forbes.

Street Lights.—Aldermen West and Barrows, and Councilmen Reynolds, Warren and Wilde.

Printing.—Alderman Taylor, and Councilmen Wood and Wright.

Buildings in the Fire Districts.—Aldermen West and Hathaway, and Councilmen Adams, Rogers and Warren.

Armories and Military Property.—Aldermen Bentley and West, and Councilmen Ashley, Fuller and Hathaway.

Water Works and Water Supply.—Aldermen Barrows and West, and Councilmen Wood, Delano and Platt.

Claims.—Aldermen Bentley and Taylor, and Councilmen Brownell, Rogers and Adams.

Ordinances.—Aldermen Hathaway and Hewins, and Councilmen Ashley, Forbes and Knight.

STANDING COMMITTEES OF THE COMMON COUNCIL.

Elections and Returns.—Councilmen Finnell, Knight and Taylor.

Bills in Second Reading.—Councilmen Wright, Brownell and Forbes.

Enrolled Ordinances.—Councilmen Ballou, Delano and McCarthy.

ASSESSORS.

Office, Library Building, Room 6.

GEORGE E. BRIGGS, Chairman, 3 years.

JOHN A. RUGGLES, 2 years.

CHARLES D. TUELL, 1 year.

ASSISTANT ASSESSORS.

Ward 1.—THOMAS BURGESS.

Ward 2.—ARTHUR B. CHAPPELL.

Ward 3.—HENRY C. RUSSELL.

Ward 4.—MARSHALL T. MILLS.

Ward 5.—WILLIAM J. ABRAMS.

Ward 6.—FRANK PAUL.

BOARD OF HEALTH.

Office, 52 Pleasant Street.

WILLIAM N. SWIFT,

Term expires February, 1896.

WILLIAM G. KIRSCHBAUM,

Term expires February, 1896.

NATHANIEL HATHAWAY,

Term expires February, 1897.

NATHANIEL HATHAWAY, Chairman.

WILLIAM N. SWIFT, City Physician and Quarantine Physician.

The City Physician is *ex officio* a member of the Board.

CLERK.

SUSIE J. SMALL.

HEALTH INSPECTOR.

WILLIAM E. MACOMBER.

INSPECTOR OF PLUMBING.

LOUIS H. RICHARDSON.

NEW BEDFORD WATER WORKS.**NEW BEDFORD WATER BOARD.**

His Honor, DAVID L. PARKER, Mayor, *ex officio* President.

OLIVER PRESCOTT, JR., President of the Common Council, *ex officio*.

EDMUND WOOD,

Term expires June, 1896.

THOMAS B. TRIPP,

Term expires June, 1897.

DAVID B. KEMPTON,

Term expires June, 1898.

CLERK.

ROBERT C. P. COGGESHALL.

WATER REGISTRAR.

JAMES H. HATHAWAY.

Office, Room 2, Library Building.

SUPERINTENDENT.

ROBERT C. P. COGGESHALL.

Office, City Hall Building.

INSPECTOR.

CLIFFORD BAYLIES.

Office, Room 2, Library Building.

COMMISSIONERS OF SINKING FUNDS.

MORGAN ROTCH,	Term expires March, 1896.
WILLIAM H. PITMAN,	Term expires March, 1897.
ANDREW R. PALMER,	Term expires March, 1898.

MORGAN ROTCH, Chairman.

JAMES H. HATHAWAY, Secretary and Treasurer.

OVERSEERS OF THE POOR.

CHARLES S. PAISLER,	Term expires May 1, 1896.
JAMES E. STANTON,	Term expires May 1, 1897.
CHARLES A. B. PETERSON,	Term expires May 1, 1898.

Secretary—JAMES E. STANTON.

Assistant—AUGUSTUS A. WOOD.

Clerk—ELLA F. BUCKLIN.

Supt. of Almshouse and Poor Farm—ALBERT A. CHACE.

Physician—EDWIN E. WAITE.

FREE PUBLIC LIBRARY.

TRUSTEES.

Ex officio. Term expires January, 1896.

DAVID L. PARKER, Mayor of the City.

OLIVER PRESCOTT, JR., President of the Common Council.

LUTHER G. HEWINS, JR., Alderman and Chairman of the Committee of the City Council on Education.

Elected by the City Council.

LEMUEL LEB. HOLMES,	Term expires April, 1895.
JOHN J. HOWLAND,	Term expires April, 1895.
ALEXANDER McL. GOODSPEED,	Term expires April, 1896.
WALTER S. ALLEN,	Term expires April, 1896.
ISAAC B. TOMPKINS, JR.,	Term expires April, 1897.
MATTHEW C. JULIEN,	Term expires April, 1897.

PRESIDENT OF THE BOARD.

THE MAYOR.

CLERK.

JOHN J. HOWLAND.

COMMITTEES.

On the Library.—Messrs. Julien, Allen and Holmes.*On Finance.*—Messrs. Allen, Tompkins and Goodspeed.*On the Building.*—Messrs. Tompkins, Howland and Prescott.

LIBRARIAN.

ROBERT C. INGRAHAM.

ASSISTANT LIBRARIAN.

BENJAMIN W. PENNOCK.

ASSISTANTS.

JOSEPHINE A. MERRICK,

MARY E. BROWN,

SUSIE H. GAMMONS.

JANITOR.

YORICK W. AMES.

BOARD OF PUBLIC WORKS.

Office, Odd Fellows Building.

His Honor, DAVID L. PARKER, Mayor, *ex officio* Chairman.OLIVER PRESCOTT, JR., President of the Common Council *ex officio*.

SAVORY C. HATHAWAY, Term expires May 1, 1896.

GEORGE F. BARTLETT, Term expires May 1, 1897.

CHARLES O. BRIGHTMAN, Term expires May 1, 1898.

DANIEL B. LEONARD, Clerk.

CHARLES F. LAWTON, Superintendent.

PARK COMMISSIONERS.

THE MEMBERS OF THE BOARD OF PUBLIC WORKS.

WILLIAM S. COOK, Clerk.

SUPERINTENDENT OF BRIDGE AND DRAW TENDER.

JOHN B. NICHOLSON.

CITY SOLICITOR.

ELIOT D. STETSON.

CEMETERY BOARD.

CHARLES H. VINAL.

Term expires May 1, 1896.

JAMES DELANO,

Term expires May 1, 1897.

WILLIAM SANDERS.

Term expires May 1, 1898.

Chairman, WILLIAM SANDERS.

Secretary, CHARLES H. VINAL.

SUPERINTENDENT.

CHARLES F. CORNELL.

SEALER OF WEIGHTS AND MEASURES.

GEORGE A. EGGERS.

SUPERINTENDENT OF PUBLIC BUILDINGS AND BUILDINGS IN THE
FIRE DISTRICTS.

EDMUND O'KEEFE.

INSPECTOR OF BUILDINGS.

EDMUND O'KEEFE.

SUPERINTENDENT OF CITY CLOCK.

CHARLES E. WOODWORTH.

CITY BELL RINGER.

OTHELLO S. DRISKELL.

CITY ENGINEER.

WILLIAM F. WILLIAMS.

HARBOR MASTER.

PARDON B. GIFFORD.

INSPECTOR OF PETROLEUM AND VINEGAR.

HARRISON DELANO.

Office, No. 17 Middle Street.

INSPECTOR OF MILK, ANIMALS AND PROVISIONS.

DANIEL C. ASHLEY.

Office, southeast corner Acushnet avenue and Elm street.

SUPERVISOR OF WIRES.

DANIEL D. BRIGGS.

REGISTRARS OF VOTERS.

WILLARD N. LANE,

Term expires May, 1896.

JOHN A. GOMLEY.

Term expires May, 1897.

EDWIN A. DOUGLASS,

Term expires May, 1898.

DANIEL B. LEONARD, City Clerk, *ex officio*.

Office, Basement City Hall Building.

PRECINCT OFFICERS.

Term of office expires Nov. 1, 1895.

WARD ONE, PRECINCT A.

Warden, GEORGE B. BORDEN, R.

Clerk, JAMES McDONNELL, D.

Inspector, CHARLES T. BROWNELL, R.

“ PETER J. RILEY, D.

“ JAMES H. BAMFORD, R.

“ MAURICE C. DAHILL, D.

Deputies.

Warden, GEORGE W. HILLMAN, R.
Clerk, FREDERICK C. DUNHAM, D.
Inspector, EDWARD HUGHES, R.
“ PATRICK J. MAHONEY, D.
“ EDWARD C. TABER, R.
“ JOSEPH C. DESMOND, D.

WARD ONE, PRECINCT ONE.

Warden, DANIEL J. SULLIVAN, D.
Clerk, EDWARD F. DAHILL, R.
Inspector, EDWARD M. MURPHY, D.
“ HENRY H. HACKING, R.
“ WILLIAM J. HOYLE, D.
“ MICHAEL F. HARLOW, R.

Deputies.

Warden, JOHN K. SMITH, D.
Clerk, CHARLES A. V. TERRY, R.
Inspector, DENNIS J. MCAULIFFE, D.
“ DAVID C. McWHINNIE, R.
“ DANIEL S. CONSIDINE, D.
“ CALEB SLADE, R.

WARD ONE, PRECINCT TWO.

Warden, GEORGE P. MACOMBER, R.
Clerk, JOHN N. O'BRIEN, D.
Inspector, EDWIN WHITTAKER, R.
“ DANIEL F. DRISCOLL, D.
“ GEORGE E. SAXON, R.
“ JOHN H. RYAN, D.

Deputies.

Warden, WARREN P. TOBEY, R.
Clerk, MICHAEL McDONNELL, D.
Inspector, JAMES H. SAXON, R.
“ DANIEL J. CONNOLLY, D.
“ EDWARD GEARY, R.
“ SMITH SHARPLES, D.

WARD TWO, PRECINCT THREE.

Warden, DAVID B. PIERCE, D.
Clerk, MYRON W. BROWNELL, R.
Inspector, HENRY FIELD, JR., D.
“ STEPHEN HAFFORD, JR., R.
“ WILLIAM W. ATWOOD, D.
“ ARTHUR A. DEXTER, R.

Deputies.

Warden, CHARLES A. CASE, D.
Clerk, CHARLES T. BURGESS, R.
Inspector, LUCIEN J. DAMON, D.
“ CHARLES L. FAUNCE, R.
“ JAMES P. FITZGERALD, D.
“ JAMES H. PEASE, R.

WARD TWO, PRECINCT FOUR.

Warden, GEORGE K. DAMMON, R.
Clerk, ASA L. H. ALLEN, D.
Inspector, DAVID S. SMALL, R.
“ JOSEPH P. H. CLARKE, D.
“ RUFUS H. WILLIS, R.
“ A. H. W. CARPENTER, D.

Deputies.

Warden, EDWARD T. SHERMAN, R.
Clerk, HENRY SMITH, D.
Inspector, PHILIP R. KING, R.
“ JAMES C. McNUTT, D.
“ SAMUEL E. MILLER, R.
“ CHARLES L. CHURCH, D.

WARD THREE, PRECINCT FIVE.

Warden, JOSHUA B. ASHLEY, JR., D.
Clerk, JAMES D. ALLEN, R.
Inspector, HENRY F. HAMMOND, D.
“ WILLIAM T. CASWELL, R.
“ JAMES E. BLAKE, JR., D.
“ AUGUSTUS G. MOULTON, R.

Deputies.

Warden, WILLIAM E. COOPER, D.
Clerk, CHARLES M. COMEY, R.
Inspector, JOSHUA G. LAPHAM, D.
" PRINCE S. BORDEN, R.
" CHARLES T. LUCE, D.
" WALTER G. HAMLIN, R.

WARD THREE, PRECINCT SIX.

Warden, JAMES F. CHIPMAN, D.
Clerk, B. FRANKLIN WORDELL, R.
Inspector, OBED S. COWING, D.
" THOMAS H. FORBES, R.
" EDWARD S. RUSSELL, D.
" WILLIAM E. CARROLL, R.

Deputies.

Warden, CHARLES FLEETWOOD, D.
Clerk, CHARLES L. PAINE, R.
Inspector, TIMOTHY CROWLEY, D.
" ISAIAH C. DADE, R.
" ARTHUR C. WHEATON, D.
" ELMER W. BROWNELL, R.

WARD FOUR, PRECINCT SEVEN.

Warden, WILLIAM F. CASWELL, R.
Clerk, WALTER R. MYRICK, D.
Inspector, AUGUSTUS D. PIPER, R.
" GEORGE R. YOUNG, D.
" MARSHALL T. MILLS, R.
" GEORGE S. HOYT, D.

Deputies.

Warden, JAMES B. RUSSELL, R.
Clerk, WILLIAM L. R. GIFFORD, D.
Inspector, FRED D. BARROWS, R.
" CHARLES F. DEAN, D.
" SETH W. GODFREY, R.
" CHARLES H. FULLER, D.

WARD FIVE, PRECINCT EIGHT.

Warden, PHILIP S. BRIGGS, D.
Clerk, JOHN K. MCAFEE, R.
Inspector, GEORGE P. RICHARDSON, D.
" ARTHUR C. SPOONER, R.
" ISAAC C. SHERMAN, D.
" ORRICK SMALLEY, JR., R.

Deputies.

Warden, WILLIAM H. SHERMAN, D.
Clerk, ALBION T. BROWNELL, R.
Inspector, THOMAS J. PEED, D.
" GEORGE P. BROCK, R.
" JOHN T. RICHARDSON, D.
" GEORGE F. COLE, R.

WARD FIVE, PRECINCT NINE.

Warden, HENRY S. SWAIN, R.
Clerk, HENRY A. GRAY, D.
Inspector, DAVID M. PIPER, R.
" WILLIAM C. KENNEDY, D.
" FREDERICK B. COOK, R.
" CHARLES S. BAYLIES, D.

Deputies.

Warden, FRANCIS A. BOOTH, R.
Clerk, ROBERT L. BAYLIES, D.
Inspector, JOHN C. EMERY, R.
" GEORGE A. CAVANAUGH, D.
" EDWARD H. COOK, R.
" CHARLES F. F. JONES, D.

WARD SIX, PRECINCT TEN.

Warden, CHARLES F. BRIGGS, R.
Clerk, LEANDER A. WILLISTON, D.
Inspector, GEORGE F. CURRY, R.
" FRANK CROACHER, D.
" CLIFTON H. CORNISH, R.
" FRANK G. TABER, D.

Deputies.

Warden, ROLAND R. ASHLEY, R.
Clerk, JOHN J. MEANEY, D.
Inspector, CHARLES E. ALLEN, R.
" THOMAS J. MEANEY, D.
" HARRY C. VAUGHAN, R.
" RICHARD F. LONG, D.

WARD SIX, PRECINCT ELEVEN.

Warden, HERBERT B. GARDNER, R.
Clerk, N. HERBERT GREENE, D.
Inspector, WILLIAM W. BONNEY, R.
" WILLIAM N. NELSON, D.
" AMOS W. HADLEY, R.
" GIDEON D. POPPLE, D.

Deputies.

Warden, MARSHALL S. GREENE, R.
Clerk, ZEBEDEE A. POPPLE, D.
Inspector, WILLIAM A. GIBBS, R.
" MICHAEL T. FRANCIS, D.
" FRANCIS THORLEY, R.
" CHARLES D. RUSSELL, D.

WARD SIX, PRECINCT TWELVE.

Warden, GEORGE F. PINDER, R.
Clerk, CHARLES E. JENNINGS, D.
Inspector, SAMUEL WATSON, 2d, R.
" GEORGE L. JENNINGS, D.
" ANDERSON H. SWIFT, R.
" PATRICK KENNEY, D.

Deputies.

Warden, CHARLES A. S. SHERMAN, R.
Clerk, JAMES J. DONAGHY, D.
Inspector, WILLIAM N. JEWETT, R.
" JOHN J. DOWNEY, D.
" LEANDER REED, R.
" PATRICK W. WALDRON, D.

VOTING PRECINCTS.

WARD ONE.

Precinct A. Said line shall begin at a point in the channel of the Acushnet river formed by the extension of the center of Sawyer street, thence westerly in said extended line and in the center of Sawyer street to the center of County street, thence southerly in the center of County street to the center of Peckham street, thence westerly in the center of Peckham street to the center of Mt. Pleasant street, thence southerly in the center of Mt. Pleasant street to the center of Durfee street, thence westerly in the center of Durfee street in a straight line to the boundary line between the town of Dartmouth and the city of New Bedford, and is further defined as follows: All that portion of said ward lying north and west of said division line shall be a voting precinct, and be known as Precinct A.

Voting place, No. 8 engine house, corner Acushnet avenue and Davis street.

Precinct One. All that portion of said ward lying south and east of the south and east line of Precinct A shall be the north and west line of Precinct One; the south line of said precinct shall commence at a point in the channel of the Acushnet river formed by the extension of the center of Linden street, thence westerly in the center of Linden street to the center of Ashland street, thence northerly in the center of Ashland street to the center of Durfee street, thence westerly in the center of Durfee street to the center of Mt. Pleasant street, and is further defined as follows: All that portion of said ward lying within said lines shall be a voting precinct and be known as Precinct Number One.

Voting place, ward room corner Weld and Bowditch streets.

Precinct Two. All that portion of said ward lying south of the south line of Precinct One shall be the north line of Precinct Two, and the south line shall be the same as at present, namely, the division line between Wards One and Two, and is further defined as follows: All that portion of said ward lying within said lines shall be a voting precinct, and be known as Precinct Number Two.

Voting place, Howland Chapel, 634 Purchase street.

WARD TWO.

Precinct Three. All that portion of said ward lying east of a line drawn through the centre of Thomas, Sycamore and County streets to a point at the intersetion of a line formed by the extension of a line through the center of Franklin street.

Voting place, ward room on Willis street.

Precinct Four. All that portion of said ward lying west of the aforesaid division line.

Voting place, the vestry of the Spruce Street church.

WARD THREE.

Precinct Five. All that portion of said ward lying east of a line drawn through the center of Summer street from the center of Middle to the center of Maxfield street.

Voting place, ward room, Kempton street, near County.

Precinct Six. All that portion of said ward lying west of aforesaid division line.

Voting place, building next west of the northwest corner of Hillman and Ash streets.

WARD FOUR.

Precinct Seven. The entire ward, including the islands known and called Popes and Fish islands.

Voting place, City Hall.

WARD FIVE.

Precinct Eight. All that portion of said ward lying easterly of a line drawn through the center of Fifth street, from the center of Wing street to the center of Bedford street, thence through Bedford and South Sixth street to the center of Spring street.

Voting place, ward room on Fourth street, near School.

Precinct Nine. All that portion of said ward lying westerly of the aforesaid division line.

Voting place, No. 4 engine house, Bedford street.

WARD SIX.

Precinct Ten. Said line begins at a point in the center line of South Second street, at its intersection with Griffin street, thence southerly in the center of South Second street to the center of South street, thence westerly in the center of South street to the center of Fourth street, thence southerly in the center of Fourth street to the center of Rivet street, thence easterly in the center of Rivet street to the center of Acushnet avenue, thence southerly in the center of Acushnet avenue to the center of Division street, thence easterly in the center of Division street to the center of South Water street, thence southerly in the center of South Water street to and along the center of French avenue, south to tidewater, and is further defined as follows: All that portion of said ward lying south and east of said division line shall be and is hereby made a voting precinct, to be known as Precinct Number Ten.

Voting place, ward room corner South Water and Blackmer streets.

Precinct Eleven. Said line begins at a point in the center of Griffin street at its intersection with the center of South Second street, thence westerly in the center of Griffin street to the center of Acushnet avenue, thence southerly in the center of Acushnet avenue to the

center of Wing street, thence westerly in the center of Wing street to and along the center of Allen street westerly to the center of Rockdale avenue, thence southerly in the center of Rockdale avenue to the center of Grape street, thence easterly in the center of Grape street to the center of Oak street, thence easterly in the center of Oak street to and along the center of Dartmouth street, thence southerly in the center of Dartmouth street to a line intersecting a line drawn through the center of Rockland street, thence easterly in the center of Rockland street to the center of Bonney street, thence southerly in the center of Bonney street to the center of Rivet street, thence easterly in the center of Rivet street to the center of Fourth street, and is further defined as follows: All that portion of said ward lying within the westerly division lines of Precinct Ten and the division lines as above indicated shall be and is hereby made a voting precinct, to be known as Precinct Number Eleven.

Voting place, ward room on Sherman street.

Precinct Twelve. All that portion of said ward as lies within the westerly and southerly division lines of Precinct Eleven shall be and is hereby known as Precinct Number Twelve.

Voting place, at store No. 419 Rivet street, near Bolton road.

FIRE DEPARTMENT.

CHIEF ENGINEER.

FREDERICK MACY, Term expires January, 1898.

Office, City Hall Building.

ASSISTANT ENGINEERS.

First—LORING T. PARLOW, Term expires January, 1899.

Second—JAMES J. DONAGHY, Term expires January, 1898.

Third—SAMUEL C. FRANCE, Term expires January, 1897.

Fourth—GEORGE M. CRAPO, Term expires January, 1896.

CLERK OF BOARD OF ENGINEERS.

LUTHER G. HEWINS, JR.

MEMBERS OF THE NEW BEDFORD PROTECTING SOCIETY.

(Special Police Officers to serve at fires.)

Akin, Francis T.	Hadley, A. W.	Read, William F.
Allen, George H. H.	Hammond, Henry F.	Robbins, Arthur E.
Allen, Gideon	Haskell, Charles M.	Robinson, William A.
Allen, Gilbert	Holden, Charles H.	Rotch, Morgan
Bamford, James H.	Howard, Henry	Richardson, Louis H.
Bamford, William	Howland, John J.	Sanford, Gardner T.
Bennett, George W.	Hussey, Charles M.	Sawin, Frank E.
Bentley, Lewis E.	Hutchinson, Henry S.	Shaw, S. Edward
Bourne, Standish	Kelley, Charles S.	Snow, Robert
Bly, O. Frank	Kingman, G. D.	Swift, Leander H.
Briggs, George E.	Knowles, Thomas H.	Swift, R. W.
Case, Charles A.	Lawton, Charles H.	Taber, Charles M.
Coggeshall, R. C. P.	Lewis, Edgar R.	Taber, Frederick
Cornish, Clifton H.	Lowe, John H.	Taylor, William T.
Denison, Henry C.	Macy, Frederick B.	Thornton, Alfred
Dias, Joseph	Manchester, P. F.	Tripp, Augustus C.
Dunham, Ernest A.	Maxfield, Edmund F.	Vincent, Mark T.
Dunham, Fred C.	Nye, Willard, Jr.	Washburn, F. A.
Eldridge, John, Jr.	Paine, Charles L.	West, William R.
Field, Walter F.	Parker, James N.	Wilbor, Alfred G.
Francis, James P.	Peirce, Stephen D.	Wilde, Edmond L.
Gardner, Edward R.	Phillips, George A.	Willis, William H.
Gibbs, John E.	Pierce, Edward T.	Wood, Edmund
Gifford, Charles H.	Pierce, Otis N.	Wood, Horace
Gifford, Frank H.	Pitman, William H.	Wood, Thomas F.
Gifford, Thomas J.	Potter, William F.	

POLICE DEPARTMENT.

CHIEF.

GEORGE DOUGLASS.

CAPTAINS.

TIMOTHY C. ALLEN, JAMES L. WILBER.

LIEUTENANTS.

LEMUEL D. ADAMS.
 SETH E. BRYANT,
 THOMAS W. COMSTOCK.
 THOMAS FAY,

ARTHUR H. JONES,
 ELLERY PEIRCE,
 THOMAS J. TAFT,
 JOSEPH B. WING.

INSPECTORS.

FRANKLIN L. HATHAWAY, JOHN C. PARKER.

PATROLMEN.

ALLEN, EDGAR W.	McBAY, CHARLES L.
ALLEN, EDWARD	McCARTHY, JEREMIAH
ALLEN, ROBERT N.	McDONNELL, PATRICK
ALMOND, WALTER	McLEOD, SAMUEL D.
ALMOND, WILLIAM, JR.	MEEHAN, DANIEL
ARNETT, HENRY	MITCHELL, JAMES
ARNETT, JAMES W.	MOYNAN, ROBERT
ATWOOD, WILLIAM W.	MURPHY, CORNELIUS J.
BROWNELL, MILTON A.	OLIVER, JOHN F.
CALLANAN, THOMAS F.	PAIGE, GEORGE W.
CANNAVAN, PATRICK	PINKHAM, GEORGE W.
CLARK, ULYSSES L.	PREECE, THOMAS
CLOUGH, GEORGE H.	RAYMOND, HIRAM E.
COWING, WILLIAM J.	REMINGTON, FRANK L.
COX, JAMES M.	RHODES, HENRY W.
DAHONEY, THOMAS	RICKETSON, HARRISON D.
DALEY, JEREMIAH E.	ROOKS, JOHN C.
DEMERS, FRANK E.	ROSCOE, WILLIAM E.
DENEEN, DANIEL	RUSSELL, EUGENE F.
DODDS, JAMES	SAVAGE, JAMES W.
DUMEC, PETER	SISSON, JOSEPH DE L.
ELDRIDGE, WASHINGTON A.	SMITH, ANDREW J.
ENOS, FRANK	SMITH, CHARLES F.
FOLEY, EDMUND	STOW, HARRY D.
GENDRON, GEORGE E.	SULLIVAN, TIMOTHY
GIBBS, NATHANIEL F.	SWEENEY, DANIEL P.
GIFFORD, CHARLES C.	SYLVIA, FRANK W.
GRAY, ALBERT N.	TABER, JEREMIAH M.
HUMPHREY, DANIEL J.	UNDERWOOD, WILLIS C.
HUTCHINSON, JOHN J.	VOGEL, GEORGE
IVEY, JAMES A.	VOGEL, ROBERT F.
KENNEDY, PATRICK	WESTON, STEPHEN J.
KENT, CHANCELLOR	WILLIAMS, JOHN H.
LEE, ALLEN L.	WILSON, THOMAS H.
MATHER, JOSEPH	WIXON, JAMES A.

HEALTH OFFICER.

MACOMBER, WILLIAM E.

WAGON-MAN.

JONES, JOHN M.

DRIVERS.

JENNINGS, EDWARD F. McENNIS, ROBERT B.

HOUSEKEEPERS.

BUMPUS, HENRY W.	RUSSELL, ELISHA E.
DAYTON, LUTHER M.	STEVENS, HENRY
MITCHELL, WILLIAM H.	SULLIVAN, JOHN D.

SPECIAL HOUSEKEEPERS.

JONES, ISAAC M. MANCHESTER, JOHN B.
ROBBINS, CHARLES H.

MATRON.

BULLARD, MARGARET S.

JANITOR.

DREW, MOSES C.

CLERK.

WEST, HENRY N.

CONSTABLES.

THE MEMBERS OF THE POLICE FORCE, LEWIS S. MOORE,
SAMUEL C. PERRY AND THOMAS D. HOWLAND.

KEEPER OF THE LOCKUP.

GEORGE DOUGLASS.

PROBATION OFFICER.

ISAAC H. COE.

SPECIAL POLICE OFFICERS.

Aldrich, Oscar F.	Briggs, John W.	Clark, William
Barber, John R.	Brown, William L. G.	Clarkson, Nicholas J.
Barker, Robert T.	Buckley, Alfred R.	Clynes, Thomas
Bartel, Leopold	Burgess, Stephen	Cole, William T.
Bennett, Jeremiah H.	Burke, Michael I.	Collins, John
Bentley, Frank T.	Burke, William	Conklin, Abraham
Berry, James H.	Butts, Henry R., Jr.	Connelly, Daniel J.
Bliss, Frederick P.	Butts, Squire W.	Corish, John
Bliss, William H.	Chace, Albert A.	Corley, Maurice C.
Booth, Benjamin T.	Chipman, James F.	Cornell, Charles F.
Borden, Prince S.	Clark, Michael	Cornell, Sidney I.

Crafts, James	Johnson, Oscar	Pinelle, Joseph
Cronin, Cornelius	Johnson, W. H., Smith street.	Piper, Augustus D.
Dammon, George K.	Jones, Isaac M.	Place, William J.
Davenport, Charles H.	Jordan, William	Pollock, John H.
Davis, Otis A.	Joseph, John	Quinn, Joseph
Delano, Harrison	Karcher, Freder'k, Sr.	Rau, Gustavus L.
Devine, Patrick	Kelley, Hiram C.	Read, George P.
Devoll, George H.	Kennedy, Thomas	Read, Richard A.
Doherty, Edward P.	Kent, James D. T.	Remington, John G.
Donaghy, Joseph	King, Joseph T.	Reynolds, James R.
Duckworth, Wm. A.	Lapham, George W.	Richie, David
Duffy, Thomas	Lawrence, Cyrus T.	Robbins, Charles H.
Durfey, Richard T.	Lawrence, George R.	Rooks, Albert H.
Eldredge, Samuel T.	Leary, Dennis, Jr.	Russell, James B.
England, George	Lincoln, Ellery C.	Sadler, William G.
Ethell, Edward	Lincoln, John	Salmon, John
Ferguson, William	Little, Frank	Saxon, James H.
Finn, Michael	Little, John E.	Shea, Michael J.
Fitzgerald, James	Lowther, George W.	Shields, Charles M.
Francis, Frank W.	Lumbert, John	Small, David S.
Frissell, Amasa R.	Luther, Joseph P.	Smith, Henry
Fuller, Jonathan A.	McDermot, Michael	Smith, Henry H.
Geddis, Henry S.	Macomber, H. M.	Spicer, Robert H.
Gibbs, Preston H.	Marr, William J.	Spooner, Joseph W.
Gibbs, William H. H.	Martin, Henry T.	Staples, Elias
Gifford, John	McCarthy, Edward	Stephens, Michael
Glennon, Thomas F.	McDonald, Daniel J.	Taft, Daniel F.
Grant, Lafayette	McDonnell, James	Tallman, Edward S.
Greene, Marshall S.	Miller, George	Taylor, Theodore
Harrington, Cornelius	Morgan, Elias T.	Taylor, William A.
Harrington, Daniel	Morrison, Thomas	Thomas, Edward, Jr.
Harrington, J., Clark st.	Netcher, George F.	Thompson, Thomas
Hernon, John	Nicholson, John B.	Thomson, John H.
Hillman, George W.	Nye, George E.	Tinkham, John S.
Hines, Henry S.	Oliver, John	Tinkham, Otis
Holden, George	Palmer, Robert	Tripp, Benjamin E.
Holloway, James T.	Parker, Charles W.	Tripp, Holder R.
Holmes, Ezra	Partington, William	Tripp, LeRoy G.
Holmes, John J.	Peckham, Samuel W.	Tuell, Charles D.
Howard, Henry	Peed, Thomas J.	Underwood, John A.
Howland, Joseph B.	Peirce, Anthony, Jr.	Warfield, James H.
Howland, Wm. A. E.	Perry, Samuel C.	Waters, Charles O.
Howland, William G.	Phillips, Henry T.	Watts, William H. C.
Jay, James A.	Pierce, Thomas H.	Weeden, Charles H. L.
Jenney, Ezra T.		Wilbur, Allen R.

Wilcox, Seth A.	Willis, Rufus H.	Wilson, John
Wiley, James	Williston, Hiram L.	Wood, Charles N.
		Wood, James A.

MEASURERS OF WOOD AND BARK.

Allen, Abram A.	Coxen, Charles H.	Notter, John
Ashley, Roland R.	Dillingham, Abram L.	Pickens, George
Bennett, William H.	Grinnell, A. B., Jr.	Rodman, Frank P.
Chace, Ira M.	Gurney, William A.	Smith, John
Cobb, George A.	Hall, George N.	Taber, Edward C.
Coffin, Stephen P.	Morse, Charles M., Jr.	

SURVEYORS OF LUMBER.

Beetle, John H.	Doane, Joshua G.	Smith, Charles F.
Carpenter, George H.	Graham, Robert P.	Terry, Charles A. V.
Chase, Abram	Hayes, Lemuel W.	

MEASURERS OF GRAIN.

Bentley, Edwin R.	Chace, Ira M.	Rodman, Frank P.
	Hall, George N.	

WEIGHIERS OF COAL.

Bowman, Fred G.	Godfrey, Eva B.	Reed, Edmund A.
Brooks, Nathan B.	Hall, George N.	Rodman, Frank P.
Chace, Ira M.	Hathaway, Benj. F., Jr.	Rounsevell, Walter S.
Comey, Charles M.	Hunt, Josiah	Smith, John
Corson, Frank E.	Lindsey, Robert	Thompson, Charles E.
Cuddy, Edward C.	Lowden, Benj. B.	Tripp, Jabez D.
Day, Thomas E.	Negus, Southward P.	Wilson, Wallace B.
Gibbs, John E.	Percy, T. A.	Wordell, Wilson I.
Gifford, Nathaniel W.	Pierce, Edward E.	

CITY WEIGHIERS.

Albiston, Clayton,	Bearse, Albert C.	Brownell, Charles H.
Ashley, Clara M.	Benson, Annie C.	Butts, James D.
Ashley, Moses E. H.	Blanchard, C. S.	Chace, Ira M.
Ashley, Roland R.	Brooks, Nathan B.	Chace, Albert A.

Cleary, Daniel J.	Hassett, James	O'Connor, Cornelius
Cobb, George A.	Hathaway, B. F., Jr.	Paul, George H.
Comey, Charles M.	Hayden, Edward D.	Pedro, George E.
Conwell, Joseph F.	Hill, John	Peirce, Edward E.
Corson, Frank E.	Hitch, Frank B.	Perry, John S.
Craft, James	Howard, Henry	Potter, Edwin L.
Cuddy, Edward C.	Howland, Beriah G.	Quinn, J. T.
Day, Thomas E.	Hunt, Josiah	Reed, Edmund A.
Doane, Edward D.	Jennings, Charles E.	Rodman, Frank P.
Drysdale, Robert M.	Jennings, George L.	Rose, Frank E.
Duff, John	Jennings, John	Rounsevell, Walter S.
Duffield, William C.	Jennings, John W.	Sherman, David W., Jr.
Dyer, Edward C.	Jewett, Charles A.	Shirley, Percy E. S.
Edwards, Charles F.	Johnson, Ferdinand A.	Sisson, Frank E.
Field, Edward H.	Kenney, Edward D.	Sullivan, John B.
Foley, Timothy	Kidd, George H.	Swift, Reuben E.
Foster, Charles	Lamontagne, Frank	Taber, Edward C.
Gibbs, John E.	Lee, John A.	Thompson, Charles E.
Gibbs, J. Edward, Jr.	Lewis, Henry S.	Tilton, Herbert E.
Gibbs, William H. H.	Lindsey, Robert	Tripp, Jabez D.
Gifford, Nathaniel W.	Lynch, Simon F.	Tripp, John E.
Gilbert, Peter	Lyons, John	Tripp, Joseph J.
Gile, J. F.	Macomber, Harry T.	Willis, Charles L.
Gilston, John W.	Mason, Frederick A.	Wilson, Wallace B.
Godfrey, Eva B.	McCarthy, Mortimer	Wood, John
Grant, Lafayette	Miller, David	Wordell, Wilson I.
Greene, Luthan J.	Negus, Southward P.	York, Joseph
Gurney, William A.	Nowell, Joseph C.	

WEIGHERS OF BOILERS AND HEAVY MACHINERY.

Brooks, Nathan B.	Hathaway, B. F., Jr.	Sisson, William H. H.
Corson, Frank E.	Howard, Henry	Smith, John
Godfrey, Eva B.	Stone, Walter A.	

FENCE VIEWERS.

Cobb, George A.	Pierce, Crawford S.	Williston, Leander A.
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POUND KEEPERS.

Dayton, Luther M.	Manchester, John B.	Russell, Elisha E.
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FIELD DRIVERS.

The Police, William H. Johnson, (Smith street), John B. Manchester

1894—CITY DOCUMENT No. 3.

CITY OF NEW BEDFORD, MASS.

TWENTY-FIFTH ANNUAL REPORT

OF THE

NEW BEDFORD WATER BOARD

TO THE

CITY COUNCIL,

CONTAINING :

I.

The Report of the New Bedford Water Board for 1894; including the
First Quarterly Report upon the Further Water Supply.

II.

The Report of the Water Registrar.

III.

The Report of the Superintendent.

DECEMBER 28, 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., PRINTERS TO THE CITY.

1895.

NEW BEDFORD WATER BOARD.

1895.

DAVID L. PARKER,

Mayor of the City.

OLIVER PRESCOTT, JR.,

President of the Common Council.

DAVID B. KEMPTON.

EDMUND WOOD.

THOMAS B. TRIPP.

CLERK OF THE BOARD, AND SUPERINTENDENT.

ROBERT C. P. COGGESHALL.

WATER REGISTRAR.

JAMES H. HATHAWAY.

FOREMAN.

JOHN C. DEMELLO, JR.

PUMPING STATION.

ADONIRAM S. NEGUS, *Pumping Engineer.*

INSPECTORS.

CLIFFORD BAYLIES.

ARTHUR R. WEEKS.

REPORT.

CITY OF NEW BEDFORD,
OFFICE OF THE NEW BEDFORD WATER BOARD,
December 28, 1894.

To the City Council of the City of New Bedford.

GENTLEMEN : — The New Bedford Water Board herewith respectfully present this their twenty-fifth annual report.

By an order passed by you on November 8th, 1894, authorizing the work of adding to our water supply, a special report is also to be made to the first regular meetings of the City Council in the months of January, April, July and October of each year.

As the proceedings under this new authority have just begun, and the whole question of the addition to our water supply is fully presented in this our annual report, no separate report will be made.

After a faithful service of nine years, which terminated in June, Henry Howard declined to be a candidate for re-election as a member of this Board.

On June 14, Thomas B. Tripp was elected a member of the Board for a term of three years.

The following abstract is drawn from the report of James H. Hathaway, City Treasurer and Water Registrar : —

Balance Dec. 1, 1893,	\$43,503.21
Receipts for the year, all sources,	104,541.80
	<hr/>
	\$148,045.01

The charges have been as follows:—

Expenditures for management and repairs,	\$54,191.02
Expenditures for extensions,	29,944.90
	<hr/>
	\$84,135.92

Which leaves a balance to the credit of the works on the books of the City Treasurer, Dec. 1, 1894,	\$63,909.09
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The following is a brief statement regarding the financial operations of the past year:—

DEBITS.

Balance Dec. 1, 1893,	\$43,503.21
Receipts from water rates,	\$83,516.19
Receipts from rents, sales, etc.,	892.35
Receipts from laying main and service pipes in private property, and fines,	8,133.26 = 92,541.80
General appropriation for use of water for public purposes,	12,000.00
General appropriation by tax levy to make up deficit,	17,866.67
	<hr/>
	\$165,911.68

CREDITS.

Management and repairs, less interest and sinking funds,	\$31,491.02
Extension of works,	29,944.90
Interest on bonds, general appropriations,	\$11,866.67
Interest on Sylvia Ann Howland fund, general appropriations,	6,000.00
Interest paid from water rates,	20,000.00 = 37,866.67
Sinking funds paid from water rates,	2,700.00
Balance, Dec. 1, 1894,	63,909.09 = \$165,911.68
The actual outlay for the construction of these works, Dec. 1, 1894, exclusive of debt, interest, and management and repair account, is	\$1,620,066.67

Under Chapter 171 of the Acts of the General Court of 1894, entitled “An Act to authorize the City of New Bedford to refund a portion of its water debt,” \$100,000 water bonds 4s and \$20,000 6s, which fell due October 1, 1894, were refunded by the issue, May 11, 1894, of

\$120,000 water bonds 4s, made payable in twenty years from April 1, 1894. The price received was \$107.03, a premium of \$8,436, which was placed to the credit of the Commissioners of Sinking Funds, by an order of the City Council.

Forty-one petitions have been received for the extension of main pipes. Of this number thirty-nine have been granted.

Seventeen thousand two hundred ninety feet of main distribution pipe has been laid, and 4,522 feet of that previously laid has been removed, making a total of $74\frac{6.525}{1000}$ miles now in use.

The number of service pipes has been increased 236; total number now in use, 7,767.

A contract was made on January 27 with the Walworth Manufacturing Company of Boston for a supply of screw taps, sidewalk stops and other brass castings. The consideration ranged, in accordance with the size, from 50 cents to 77 cents for taps, 48 cents to 83 cents for sidewalk stops, and 18 cents per pound for stop-box fittings.

A contract was made on August 4, by the Fuel Committee of the City Council, with David Duff & Son for a supply of 1,200 gross tons of Pocahontas coal, and 50 gross tons of pea coal; the consideration, delivered at the pumping station, to be \$4.20 per gross ton for the Pocahontas and \$4.25 per gross ton for the pea.

A contract was made on December 10 with R. D. Wood & Co. of Philadelphia for 753 gross tons of straight cast-iron pipe, the same to be delivered in this city by April 10, 1895. The consideration was \$19.65 per gross ton.

A contract was awarded the Fairhaven Iron Foundry, on December 12, for a line of special castings. The consideration was $3\frac{1}{4}$ cents per pound for service stop-boxes and covers, and $2\frac{1}{4}$ cents per pound for branches, gate boxes and other castings.

The following statement will place before you an outline of the movements which have been made in the direction of the further water supply during the past year.

An order was passed by you on November 23, 1893, whereby this Board was instructed "to prepare and present to the City Council the draft of a petition to the Legislature for securing the necessary authority to obtain an additional water supply for the City of New Bedford."

In compliance with this order, on January 4, 1894, a communication, of which the following is a copy, was presented to the City Council:—

OFFICE OF THE NEW BEDFORD WATER WORKS,
NEW BEDFORD, January 4, 1894.

To the City Council of the City of New Bedford.

GENTLEMEN:—According to an order passed by you, the New Bedford Water Board herewith presents the draft of a petition to the Legislature, and it respectfully asks for authority to execute said petition in the name of the City of New Bedford, and it would also recommend that a committee of the City Council be appointed to aid it in securing suitable legislation.

In order to secure consideration for this petition by the present term of the Legislature, it is necessary that it be presented at once, and we therefore hope that prompt action may be taken upon it.

It might be well, out of courtesy to the many new members this year, to state briefly that last year this Board presented a partial report of its action under the authority of an order of the City Council authorizing it to take certain steps towards the securing of an additional water supply. In this report was the outline of a plan submitted by expert engineers for taking from and distributing the waters of the Middleborough Ponds, so-called.

But before moving in the matter of adopting any special

plan, it was evident that any plan showed the necessity of securing for the city additional rights from the Legislature to take and use the waters of those ponds. The City Council responded by passing an order that this Board be authorized to prepare the draft of a petition to the Legislature.

Upon consultation with the City Solicitor, that official recommended that in a matter of this moment the Board should secure the assistance of special counsel, and of some one who had made a special study of such subjects.

Realizing the importance of this whole question, the Water Board retained Thomas M. Stetson, Esq., who is recognized as a special authority upon the great ponds of the State, and who has in the past been extensively employed in such matters. And we confidently expect that before the time of the hearing which the Legislature will probably grant, upon the above petition, this Board will be prepared, by the advice of Mr. Stetson, to present to the Legislature the needs of this city in respect of additional rights and privileges, which will secure to us an adequate supply of water for many years to come.

You will, we hope, understand that the action we now ask of you is not an endorsement of any plan, and does not call for the expenditure of any money by the City Council. This is simply a petition for certain rights to be secured to the city.

Respectfully submitted.

NEW BEDFORD WATER BOARD,

By STEPHEN A. BROWNELL, President.

In response to this communication the following action was taken by you at your meeting held on January 4:—

Ordered, That the New Bedford Water Board execute the petition to the Legislature for an additional water supply in the name of the city, and that the Joint Standing Committee on Water Works and

Water Supply be authorized to aid the Water Board in securing suitable legislation.

This order was received by this Board at a meeting held January 6, and at the same meeting the petition to the Legislature was executed. The following is a copy : —

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts :

Respectfully represents the City of New Bedford, that it is necessary that its supply of water should be increased, and it prays for authority to make additional conduits, reservoirs and constructions for transfer of water, and to purchase and condemn suitable lands, also to facilitate the flow of water in the Lakeville ponds towards its pumps, and for privileges to use or vary a certain road or roads outside of its own limits, also for additional safeguards for its existing conduits and water premises.

Signed : THE CITY OF NEW BEDFORD,
By the NEW BEDFORD WATER BOARD.
STEPHEN A. BROWNELL, President.
JOHN H. BARROWS,
HENRY HOWARD,
DAVID B. KEMPTON,
EDMUND WOOD.

On January 12, in accordance with the statute, we made a regular application to the State Board of Health for advice upon and approval of proposed source of water supply.

The following is a copy of the application : —

NEW BEDFORD, Mass., January 12, 1894.

To the State Board of Health, 13 Beacon St., Boston : —

Acting under the authority of Chapter 375 of the Acts of 1888, we hereby give notice of our intention to introduce a system of water supply in the City of New Bedford, Massachusetts, and hereby submit our proposed plans for

your advice as to the most appropriate source of supply and the best practical method of assuring the purity thereof.

Respectfully yours.

NEW BEDFORD WATER BOARD,

By STEPHEN A. BROWNELL,

Mayor and President of New Bedford Water Board.

(After this signature comes the following statement :—)

The scheme is not a new one.

The City of New Bedford has already rights in the Little Quittacus whence we now draw water, also in the Long pond to which we have acquired a way for a conduit, but have not yet built (Statutes 1878, Chapter 140). Also we have statutory right to share in the artificial reserves in the Lakeville ponds, to be created by the $2\frac{1}{2}$ foot dam authorized by Section 3 of said chapter and by Acts 1875, Chapter 217. When the dam operates all the Lakeville ponds, which are now nearly one body of water, will be at one level and constitute one pond, which would flow to our gate house on Little Quittacus above referred to. The water of Great Quittacus would flow there first, and as we are advised that its water is better, we prefer it to a pump house on Long pond.

We annex printed report of Messrs. Rice & Evans, hydraulic engineers, which indicates our proposed methods. We should need to facilitate the passage between Great Quittacus and Little Quittacus, and also between Great Quittacus and Pocksha. The artificial reserves created by said dam will also need retaining dams at certain points, viz. : at south end of Great Quittacus, and perhaps at south end of Little Quittacus, and also similar dams where a flowage of meadows would not be of utility. Said reserves might also flow wholly or in part certain low places in country roads, which it would be necessary to raise.

We also need authority to place pipes and reservoirs in certain country roads and places outside of city limits under proper safeguards.

We also use certain waters of the Acushnet river and its reservoirs, under our original water act of 1863, Chapter 163.

The City of Taunton already has and uses a supply by filter bed in Taunton river and from Elder's pond.

Thus the artificial reserves of the said dam will for the two cities furnish auxiliary supply merely, and may not be large unless the cities increase.

So it is rather impracticable to state how much we shall want in any year. As the reserves provided by said past legislation are entirely artificial, they would seem to belong wholly to the two cities who pay for the dam.

Annexed copy of our proposed Act may indicate some other details.

It may be deemed best instead of at once building to High Hill to lay a lateral pipe near our present conduit or elsewhere for purposes more or less temporary.

If legislative authority is granted to build a storage dam at the outlet of Long pond, it is quite possible that thereby the need of reserves elsewhere in the system of ponds may be obviated.

(Then follows a printed copy of the report of this Board to the City Council of date November 23, 1893, which appeared in the printed twenty-fourth annual report, and which includes Messrs. Rice & Evans' report upon the additional supply, also a copy of the proposed act.)

At a meeting of this Board held February 5, the president, Stephen A. Brownell, and Edmund Wood were appointed a sub-committee in the preparation of the draft of the proposed act and other matters to be submitted to the Legislature.

The first Legislative hearing was held at the State House, Boston, on Thursday, February 8, when objections were made by the City of Taunton. On account of this opposition, and also because the advice of the State Board of Health had not been received, the hearing was continued.

At a meeting of this Board held on Thursday, March 1, the advice from the State Board of Health was received, and it was ordered to be spread upon the records of this Board, and the clerk was directed to forward a copy to the City Council accompanied by a brief statement relative to the progress in matters pertaining to the proposed additional supply.

The following is a copy of the communication which was sent to the City Council in response to the above named order:—

OFFICE OF THE NEW BEDFORD WATER BOARD,
NEW BEDFORD, MASS., March 7, 1894.

To the City Council of the City of New Bedford.

GENTLEMEN :—The New Bedford Water Board, acting under the authority of the order of your honorable body, respectfully report further progress in the matter of the additional supply as follows, viz :—

That with the aid of our counsel, we prepared the draft of an Act and submitted it at a hearing of the legislative committee on February 8.

At that hearing, which was attended by this Board and the Committee on Water Works and Water Supply of the City Council, objections were filed by the City of Taunton to some of the provisions of our proposed Act. On account of this opposition, and also because the advice of the State Board of Health on our petition had not then been received, the committee of the Legislature decided to continue the hearing.

Since that time, the advice of the State Board of Health upon the petition of the City of New Bedford has been received, and we herewith respectfully submit a copy of this document to you for your information.

In our opinion, it is a very fair and able review of the conditions of the problem before you.

This Board have given a very careful study to the criticisms and suggestions contained therein, and with the advice of our counsel are considering some modifications of the proposed Act to conform more nearly to the plan suggested in this report.

Very respectfully.

NEW BEDFORD WATER BOARD,
By STEPHEN A. BROWNELL, President.

COMMONWEALTH OF MASSACHUSETTS.

Reply of the State Board of Health to an application from New Bedford for advice in relation to a water supply from the Lakeville ponds under the provisions of chapter 375 of the Acts of 1888:—

OFFICE OF STATE BOARD OF HEALTH,
13 Beacon Street,
BOSTON, February 21, 1894.

To the New Bedford Water Board.

GENTLEMEN:—The State Board of Health received from you on January 12, 1894, an application asking its advice with regard to a proposed additional water supply from the Lakeville ponds, said application being accompanied by the report of Messrs. Rice & Evans, hydraulic engineers, indicating the proposed methods of taking the water, and by a copy of the draft of an act accompanying the petition of your Board to the Legislature for authority to increase the water supply of New Bedford.

The plan proposed, as indicated by these various documents, is to take water from Little Quittacus pond, and to keep this pond supplied with water from the other Lakeville ponds by providing more ample water ways between Great Quittacus and Little Quittacus ponds, and between Pocksha and Great Quittacus ponds. It is further proposed by the act that this water supply shall be taken from a reserve to be created by a dam at the outlet of Assawompsett pond, or by a dam or dams at the outlet of Long pond.

The Board finds that the present consumption of water in New Bedford has reached the limit of capacity of the present sources of water supply in very dry years, and an additional supply is now required.

With regard to the source that this supply should be taken from, there seems to be no question but that it should be taken from one or more of the Lakeville ponds. These ponds are very large, and are fed from a large water shed, so that there is no doubt but that they can be made to furnish a sufficient quantity of water for a very long time in the future for all of the communities within a reasonable distance of them, which they would naturally be expected to serve. The question with regard to the source of an additional water supply, therefore, narrows to the relative quality of water in the different ponds and the best method of obtaining the required quantity of water, having due regard to the quality and to the effect which the method of taking the water may have upon the various interests to be affected thereby.

Little Quittacus pond, one of the present sources of supply, contains the best water of any of the ponds under consideration, and although the other ponds will furnish a water that might be used for all the purposes of a public water supply, there is considerable difference in the quality of the water in them, and the water of all of them would be improved by passing through and mingling with the water of Little Quittacus pond before being conveyed to the city.

The different ponds rank as follows in regard to the quality of their waters:—

Assawompsett pond.

Great Quittacus pond.

Long pond.

No examinations have been made of the waters of Pocksha pond, as it has been regarded as a part of Assawompsett pond.

It will be seen that Assawompsett pond contains the best water for supplementing the supply from Little Quittacus pond, but the distance between these ponds is so great that the extra cost of taking water from Assawompsett pond would not be warranted when a water as good as that in Great Quittacus pond is close at hand. Of the two nearer sources, Great Quittacus pond will furnish a much better water than Long pond, and it has the further advantage that it can easily be connected with Little Quittacus at a point across the pond from the proposed pumping station, so that its water will have a better opportunity to be improved in its passage through Little Quittacus pond both by mingling with the water of this pond and by bleaching.

Under the provisions of the Act which you have submitted it is proposed to obtain the required quantity of water from a reserve to be created by a dam at the outlet of Assawompsett pond, or by a dam or dams at the outlet of Long pond. Inquiry had been made of your Superintendent for information bearing upon the question of the amount of water which such a reserve as is contemplated can supply; and while he has furnished all the information which he has been able to obtain, it is insufficient as a basis for estimating at all definitely the amount of water to be obtained in this way. Further inquiry has been made in other directions by the engineers of the Board, and the quantity of water which such a reserve as is contemplated will supply has been carefully computed upon the basis of the information obtained, which, although meager, is the best that is now available.

The result of these computations has led the Board to the provisional conclusion that it will not be feasible to obtain in dry years a sufficient water supply for the cities of Taunton and New Bedford for a reasonable time in the future from the contemplated reserve.

The question of creating a reserve by raising one or all of the ponds should also be considered with reference to its effect upon the quality

of the water. If all of the ponds should be raised sufficiently to overflow the very extensive swamps and cranberry bogs bordering upon them, it would materially injure the quality of the waters in the ponds for water supply purposes.

If the storage should be confined to Long pond alone, and the quality of the water should deteriorate owing to the flowage of swamps and other lands, the quality of the water supplied to New Bedford would not be appreciably affected, because very little if any of the water of Long pond would ever find its way through Assawompsett and Great Quittacus into Little Quittacus pond; but any deterioration of the water of Long pond would have an unfavorable effect upon the Taunton water supply, a portion of which is to be taken from Assawompsett pond not very far from where the water of Long pond enters it.

A reserve such as is contemplated, if found to be feasible, would prevent or diminish the injury to water powers dependent wholly or in part upon the water which flows from these ponds; but it may be questioned whether the injury to the property surrounding the ponds by raising their level, would not more than offset the damage that would result to the water powers by taking the water without creating a reserve.

With the information now available the Board does not think it advisable that you should obtain an Act which will limit your taking of the water of these ponds to a reserve such as is contemplated, or which will make compulsory the erection of a dam to store a reserve of water equal to one year's supply for the cities of Taunton and New Bedford.

If the supply is not to be taken from a reserve, the question arises as to how it shall be taken. The plan proposed by your engineers, and referred to by you, provides for more ample water ways between the ponds, by which all of the chain of ponds extending from Assawompsett to Little Quittacus can be put in free communication with one another. If these water ways should be kept open, the draft upon Little Quittacus for supplying New Bedford with water would cause all the ponds to lower in summer more than they otherwise would, and consequently the flow out of Assawompsett pond into the Nemasket river would be diminished.

Another plan for taking water, which would cause less diminution in the summer flow of Nemasket river, is to supplement Little Quittacus by turning into it water from Great Quittacus pond only, obtaining the required quantity of water in summer by lowering the level of the pond. Estimates show that if this pond can be drawn down about six feet, it will supply in the driest year, in connection with the sources now used, enough water to supply the city of New Bedford until its population reaches 100,000. A somewhat larger

supply might be obtained almost wholly from this source if provision should be made for turning water from Pocksha pond into Great Quittacus in the months of March and April, provided Great Quittacus was not then full.

It is not probable that there would be much difference in the quality of the water obtained by either of the two plans just mentioned, although the conditions are somewhat more favorable in the first one. The Board cannot advise definitely as to which of these two plans will be the better one to adopt, having due regard for the future, because it is not fully informed as to whether it is feasible to draw Great Quittacus pond down to the extent above indicated, or if it can be done whether any local interests will be seriously affected thereby. It is obvious, however, that this pond will furnish all of the water required for New Bedford for quite a long time in the future without very much lowering of its surface even in the dry portion of the year and it may be that the right to take the waters of this pond is all that is desirable at the present time.

The water now supplied to the city is drawn directly through a conduit from the Acushnet reservoir, and although the quality of the water is not such that it would be regarded as detrimental to the health of the citizens of New Bedford, it is, nevertheless, on account of its contact with the swamps upon the watershed and its storage in a shallow reservoir, a much poorer water than that in the Lakeville ponds. It is therefore very desirable that provision should be made for conveying the water of the ponds to New Bedford in such a way that it will not be necessary to mingle it with the water of this reservoir.

By order of the Board.

SAMUEL W. ABBOTT, Secretary.

On Monday, March 12, the second legislative hearing was held at the State house, Boston. The decided expression in the report of the State Board of Health finally led to the introduction of a new bill relating to Great Quittacus pond.

To more clearly understand our needs and our proposed plans, the legislative committee made a tour of inspection of the Lakeville ponds on Saturday, March 17. They were accompanied by delegations from New Bedford and Taunton.

At the third legislative hearing, held on Thursday, April 5, some minor improvements were made in the bill.

Upon the same day it was favorably reported to the Legislature, and was finally approved May 4, 1894.

The following is a copy of the Act : —

CHAPTER 345 OF THE ACTS OF 1894.

AN ACT to authorize the City of New Bedford to increase its water supply.

Be it enacted, etc., as follows :

SECTION 1. The City of New Bedford is authorized to establish additional water works at or near the Little Quittacus pond, and all necessary conduits and other suitable structures for distributing water to, into and through said city from Great Quittacus pond through Little Quittacus pond; and may also take and hold by purchase or otherwise all lands, rights of way and easements necessary for holding and preserving such water and for protecting the purity of the same; and may erect on the land thus taken or held proper dams, reservoirs, filter basins, buildings, fixtures and other structures; and may make excavations, procure and operate machinery, and provide such other means and appliances as may be necessary for the establishment and maintenance of complete and effective water works; and may construct and lay down conduits, pipes and other works, including a second pipe from its storage reservoir in Acushnet to its receiving reservoir, under or over any lands, water courses, railroads or public or private ways, within or without the limits of said city, and along any such way in such manner as not unnecessarily to obstruct the same; and for the purpose of constructing, maintaining and repairing such conduits, pipes and other works, and for all proper purposes of this act, said city may dig up any such lands, and, under the direction of the board of selectmen of the town in which any such ways are situated, may enter upon and dig up any such ways in such manner as to cause the least hindrance to public travel thereon. If it shall at any future time become necessary for said city to draw from Long pond, the relations of the various parties in respect thereto shall be legislatively determined hereafter.

SECTION 2. The width to which land may be condemned for said aqueducts, pipes and conduits shall not exceed five rods, and said city shall have power to exclude all structures and impurities from the lands taken by condemnation or otherwise for such purposes, and if any public way shall be hereafter laid out in whole or in part over said aqueducts, pipes or conduits, the same shall not prejudice the rights of said city to care for, alter or repair the aqueducts, pipes and

conduits or otherwise. All such public ways shall conform to the grade of said aqueducts, pipes or conduits, and their surfaces shall be four feet above the top of the same, unless otherwise permitted by said city.

SECTION 3. Said city may erect a dam between Great Quittacus and the Pocksha ponds with suitable water ways for the discharge or overflow of surplus waters from Great Quittacus into Pocksha pond, but said water ways shall be so controlled by gates or otherwise as to prevent water from passing back from Pocksha to Great Quittacus pond. Said city may make such changes in any public way as are made necessary or proper by the construction of such dam, leaving such way in as good condition as before such alterations were made.

SECTION 4. If it is necessary or convenient, in order to make a reservoir upon High hill in Dartmouth, to deflect a portion of the Flag Swamp road, so called, said city may make such alterations, paying all land damages and expenses of construction, or may contract with the selectmen of the town of Dartmouth to make said alterations; and a contract so made by said selectmen shall be binding on said town. If said city makes any alterations in the location and bounds of a public way under this or the preceding section it shall transmit a description of the new location and bounds to the town clerk of the town in which such way is situated.

SECTION 5. Said city shall, within sixty days after the taking of any lands, rights of way, water rights, water sources or easement under this act, otherwise than by purchase, file and cause to be recorded in the registry of deeds for the county and district within which the same are situated a description thereof sufficiently accurate for identification, with a statement of the purpose for which the same were taken, signed by the water board of said city.

SECTION 6. Said city shall be liable to pay all damages that may be sustained by any persons in their land by any taking thereof by said city, also by any flowage damages under this act, also by any owner of water rights on or below the Nemasket river, caused by the diminution of the natural flow of the waters from Great Quittacus pond, under the provisions of this act. Any person entitled to damages as aforesaid under this act, who fails to agree with said city as to the amount of damages sustained, may have the damages assessed and determined in the manner provided by law when land is taken for the laying out of highways, by making application at any time within the period of three years from the taking of such land or other property or the doing of any other injury under the authority of this act; but no application shall be made after the expiration of said three years. No application for assessment of damages shall be made for the taking of any water, water right or any injury thereto, until the water is actually withdrawn or diverted by said city under the authority of this act.

SECTION 7. The City of Taunton shall be hereafter relieved from maintaining such proportion of the natural flow of the Nemasket river as the diminution of the natural flow of the waters from Great Quittacus pond under this act will represent.

SECTION 8. For the purposes of meeting all expenses incurred under this act said city may issue from time to time, by vote of the majority of the members of each branch of the city council taken by yeas and nays, water bonds of the City of New Bedford to an amount not exceeding twelve hundred thousand dollars, at such rate of interest as said city council may determine, and payable within not less than ten nor more than thirty years from the date of issue; and said city council may, to meet the interest on such bonds, make such further issue of water bonds as may be necessary.

SECTION 9. Whoever wilfully or wantonly corrupts, pollutes or diverts any of the waters taken or held under this act, or injures any structure, work or other property owned, held or used by said city under the authority and for the purposes of this act, shall forfeit and pay to said city three times the amount of damages assessed therefor, to be recovered in an action of tort; and upon conviction of either of the above wilful or wanton acts shall be punished by a fine not exceeding three hundred dollars or by imprisonment not exceeding one year.

SECTION 10. Sections two, twelve and thirteen of chapter one hundred and sixty-three of the acts of the year eighteen hundred and sixty-three shall be deemed to be a part of this act.

SECTION 11. Section three of chapter one hundred and forty of the acts of the year eighteen hundred and seventy eight is hereby repealed.

SECTION 12. This act shall take effect upon its passage.

Approved May 4, 1894.

At a meeting held on Wednesday, May 2, a petition was received from seventy-two property owners in the northwestern part of the city requesting that the stand-pipe opposite the Mount Pleasant reservoir be kept filled, that an increased pressure upon the mains might be maintained in the locality referred to.

As there is no division in the distributing system, the granting of this request would mean the supply of the whole city through the stand-pipe and the complete cutting out of the Mount Pleasant reservoir. The size of the

stand-pipe is wholly inadequate for any such use with the present increased consumption of our city.

The opinion of the Board was unanimous, not only that the petitioners were in need of a better service, but that other portions of the city would soon be making representations that at their elevation any supply was impossible under the present arrangement. This condition brings the city face to face with the whole problem of the high service system, and the solution of it has been an important consideration in determining the question of an increased water supply.

On Tuesday, July 10, a supplementary report was received from Messrs. Rice & Evans, and it was voted to transmit it to the City Council accompanied by a preliminary statement explanatory of the progress which had been made.

The following is a copy of the communication and report:—

CITY OF NEW BEDFORD,
OFFICE OF THE NEW BEDFORD WATER BOARD,
July 12, 1894.

To the City Council of the City of New Bedford:—

In November of last year this Board presented to you a partial report of its progress in relation to increasing our water supply. We submitted therewith a report of Rice & Evans, hydraulic engineers, recommending a certain plan and giving estimate of the cost. Before determining the method of getting water into New Bedford it seemed best to get the additional legislation empowering us to take the water recommended in that report. We therefore asked and obtained your authority to petition the Legislature for such right.

An act has since been passed giving to the City of New Bedford exclusive rights to the waters of Great and Little

Quittacus ponds, and requiring us to separate these waters from any connection with the other waters of the Middleboro ponds and limiting our liability for damage.

We enclose a copy of this act.

By the terms of this legislation the plan outlined by our expert engineers in their report had to be somewhat modified, and this Board requested them to submit a supplementary report containing these modifications and also specifying the best methods of accumulating the necessary observations and data to properly protect the City of New Bedford in any contest which might arise in adjusting the amount of its liability of damage.

Since the publication of the plan recommended by these experts as the best for increasing our water facilities there have been some questions, some suggestions and some criticisms, both public and private, upon the advisability of this particular plan.

All these expressions upon this subject, as they represent the opinions of interested citizens, have come before the Board at different times and been discussed.

In general these criticisms have been that the new plan is a more radical change than most of our citizens expected, and to some extent a desertion of the present conduit and pumps and reservoir.

It was thought that any method of adding to our supply of water would have to be a plan to patch out the present system, because this would naturally seem at first sight to be far cheaper than any other method.

In our investigations this Board soon found that this was not true.

Our present plant is now quite complete, all its differ-

ent parts balancing^g each other, and each part is up to its limit of capacity. To increase any one part necessitates an increase of the other parts until the cost figures up to something like the cost of new work.

To make sure of the truth of this opinion, and to give to the City Council some authoritative statements of the relative cost of some of these other plans for increasing our water supply, this Board also requested Messrs. Rice & Evans to review them in this supplementary report, giving estimates in detail of their comparative cost and comparative merits.

They have complied with this request, and we now submit to you a copy of their report in full.

By its conclusions you will see that these plans are more economical in first cost than the one proposed, but it is also made quite plain that the result obtained will be very inferior and the annual cost of maintenance largely in excess of that of the other.

It is impossible in the limits of this report to review the different plans in detail and give the many points which have come up for discussion by this Board, but we would respectfully suggest that we should be pleased to go into this important question with the City Council's committee on water works and water supply, or in any other manner agreeable to your honorable body.

Our object is now to put the City Council in possession of all the information which we have acquired up to the present time. It is the intention of this Board to begin at once certain surveys and scientific observations. This work has no relation to the determination of the question of how best to get the water of Great Quittacus pond into the city, but only to properly guard the interests of the city

in respect of claims for damage arising from this new act of the Legislature.

Very respectfully submitted.

(Signed) S. A. BROWNELL,
JOHN H. BARROWS,
DAVID B. KEMPTON,
EDMUND WOOD,
THOMAS B. TRIPP,
New Bedford Water Board.

OFFICE OF GEO. S. RICE AND GEO. E. EVANS,
CIVIL AND HYDRAULIC ENGINEERS, 95 MILK ST., BOSTON, MASS.,
BOSTON, July 3, 1894.

To the New Bedford Water Board.

GENTLEMEN:—Since writing the report of November 20, 1893, on an additional water supply for the City of New Bedford, an act has been passed by the Massachusetts Legislature empowering the city to take the waters tributary to the outlet of Great Quittacus pond for domestic purposes.

In the recommendations we made to you in that report it was assumed that the waters of the "Middleboro ponds" would be taken and used collectively by the cities and towns immediately adjoining them, but the recent act of the Legislature gives the right to the City of New Bedford to take a particular portion of the drainage area of these ponds under specific conditions for its own separate use and control. While this special segregation of the Quittacus ponds does not change the proposed method of conveying the water to the city, it requires the construction of a dam, overflow, etc., between Great Quittacus pond and the Pocksha portion of Assawompsett pond and limits the New Bedford supply to the drainage area of Great and Little Quittacus ponds, in addition to that of the Acushnet river acquired about thirty years ago; these collectively comprise a drainage area of about twenty-two square miles, which will under ordinary conditions furnish an ample supply of water in a dry year for a city of about twice the present population of New Bedford.

The legislative act referred to above requires, among other things, that on the taking of the waters of Great Quittacus pond the City of New Bedford shall be liable to pay damages that may be sustained by any owner of water rights on or below the Nemasket river, caused by the diminution of the natural flow of the waters from Great Quittacus

pond; it also relieves the City of Taunton from maintaining such proportion of the natural flow of the Nemasket river as is represented by the diminution in this flow caused by the taking of the waters of Great Quittacus pond.

The natural flow of water out of Great Quittacus and Assawompsett ponds are variable and at present unknown quantities, dependent on the amount of the rainfall and the areas of the watersheds tributary to the two ponds.

To properly obtain the amount of these flows will necessitate:—

First. Ascertaining the limit of the drainage area of the Nemasket river (at its junction with Assawompsett pond) and also that of Great Quittacus pond at its outlet into Pocksha pond.

Second. The establishment of stations within the area of the whole watershed, where records should be kept of the amount of the rainfall.

Third. Making observations and tests continued over a considerable space of time of the amount of water which flows out of Assawompsett and Great Quittacus ponds, and also the amount of water which may be diverted from them from time to time.

The first of these requirements can only be obtained by making a survey of the total drainage area together with that of Great Quittacus pond, so that the proportion that the New Bedford additional supply bears to the whole area can be readily ascertained.

The amount of rainfall can be ascertained by establishing rain gauge stations at convenient places on the whole watershed and by having the record of the rainfall accurately kept by proper persons living at the several different portions of the district, we will say at Rock Station, North Rochester, New Bedford reservoir dam, East Freetown Station and at Lakeville.

For the purpose of obtaining the amount of flow of water at the head of the Nemasket river and at the outlets of the Quittacus ponds flumes should be built and tests made by the use of weirs or current meters.

The several points enumerated above are important factors in the settlement of damages which are sure to follow the taking of the waters of Great Quittacus pond, and the sooner the observations are commenced the better.

It is very important that the work should be done in a workmanlike and thorough manner, so that they can be used to advantage in the subsequent settlement of the question of water damage, whether by litigation or by private settlement.

In the preliminary study which we gave to your problem last summer we examined into the feasibility of several schemes of introducing water into your city. The one which we finally settled upon had so many points of manifest superiority that we unhesitatingly

advocated it to the exclusion of all the others in the report submitted to you. It not only furnished you with the additional water supply which you now greatly need, but it provided liberally for the probable future growth of the city, and incidentally it solved two or three other problems, which would still be left for you to handle if you adopted any of the plans which simply added to your supply by enlarging the present system. These were notably your need of a much larger distributing reservoir and the growing demand for a high service system.

We did touch upon one other plan in our report, because it is the most obvious one, that of building a new large gravity conduit from Little Quittacus and entering the city practically parallel to the present conduit. We submitted some carefully prepared figures to show that although apparently so feasible it would in reality be found to be much more expensive than the one which we recommended.

In our interviews with your Board since we submitted our report you have commented favorably upon our proposed scheme and admitted that it seems to provide for all the points of improvement which suggest themselves.

You also referred to the financial question which is now interesting your city and your earnest desire to go before your City Government with evidence that every plan which might seem more economical has been thoroughly considered; on that account you rather lament that we did not more fully discuss some of the other plans which we examined and give somewhat in detail the reasons why you decided to reject them. You have therefore suggested to us that in this supplementary report we consider two or three of the schemes which you have heard broached as possible solutions of the problem and give our opinion upon their practicability, their probable cost, and their comparative merits.

It has been suggested that instead of building another gravity conduit parallel to and near the present conduit as discussed in our report it might be a better and at the same time a less expensive scheme to locate a new pumping plant at Little Quittacus pond and force the water through a four-foot iron or steel pipe into the receiving reservoir in New Bedford, and then raise it again to the distributing reservoir.

In designing the necessary works based on the above plan we have, as before, considered a pipe connection between Great and Little Quittacus ponds, for we find this method the cheapest and best manner of conveying the water from one pond to the other; should it be deemed desirable, however, to have an open connection between the ponds, with or without masonry supporting walls, the expense would be increased.

We have investigated this scheme and find the expense would be about \$710,000, divided as follows:—

54,000 lineal feet of 48 inch steel conduit,	\$437,000
Connections between Assawompsett and the Quittacus ponds,	25,000
Connection with engine house and Little Quittacus pond,	15,500
Two 5-million gallon pumping engines at Little Quittacus pond,	25,000
Two boilers with necessary piping, etc.,	4,200
Engine and boiler houses with foundations,	25,000
One 10-million gallon additional pumping engine at present pumping station,	50,000
Extension of present pumping plant, including connection with present receiving reservoir,	20,000
36-inch cast-iron force main to distributing reservoir,	15,520
Connection with present distributing reservoir weir chambers,	10,000
Contingencies,	62,780
Land damages,	20,000
Total,	<hr/> \$710,000

To carry out the above plan would require, in addition to the pumping station at the pond, the building of a connection with the present receiving reservoir, and also an extension of the present pumping plant by the addition of new engines and the laying and connecting of an additional force main from the receiving to the distributing reservoir in New Bedford.

The only advantage of this scheme is the diminution of the first cost, but this would be secured by a loss of efficiency in the utility of the works. The storage of water near the most populous parts of the city would not be increased, nor would the higher portions of the city be supplied with proper and adequate water facilities.

Of course one of these defects in this plan could be remedied by constructing a small and entirely separate high service system in addition to the other works of re-enforcing the supply of water.

By elevating three million gallons a day to a separate distributing system, an ample supply could be provided for the higher portions of the city already partly occupied by residences.

For the purpose of ascertaining the cost of such a supply, we have designed a high service system, not including the pipe distribution.

To carry out this plan it would be necessary to enlarge the present engine house to accommodate two three-million-gallon pumping en-

gines, and lay a 20-inch cast-iron force main in Coggeshall street direct to a standpipe located near the present distributing reservoir. This system would supply by constant pumping all the district practically lying above an elevation of one hundred feet above mean high tide at New Bedford, and which we will call the high service district.

Taking only the more thickly settled portion of this district into consideration, and comparing it with the area of the city lying south of Hathaway and Nash roads, it is ascertained to be about two-fifths of the whole area.

The high service district is about three square miles in extent, and is roughly bounded on the east and south by Myrtle, Linden, County, Arnold, Ash and Kempton streets, and extends westerly to the city line; that portion lying east of Rockdale avenue being fairly well populated and of about two square miles in extent.

The cost of this system would be as follows:

Standpipe, capacity 238,000 gallons,	\$15,000
Two three-million-gallon pumping engines,	32,000
Two 150-horse-power boilers and piping,	4,000
2,200 lineal feet 20-inch cast-iron force main, laid,	5,700
Two 20-inch geared gates and brick wells, with two hydrants,	636
Extension to engine house and pump well, grading and connecting with conduit, etc.,	20,000
	<hr/> \$77,336
Contingencies,	7,764
	<hr/>
Total,	\$85,100

This system when connected with the scheme previously estimated will cost \$795,100 and would give an ample supply for a number of years.

In regard to another suggestion which you make as still another alternative plan for solving the problem,—that of placing the pumping plant at the Wilson dam and forcing the water to the receiving reservoir from that point,—little would be gained in a saving of first cost by this plan, while there would be found many disadvantages. The open canal from Little Quittacus pond to the storage reservoir would have to be enlarged and put into a permanent shape, and the care and maintenance of open canals are expensive: they are not suitable in this climate for the comparatively small amount of water which would pass through them.

The main objection, however, is that the comparatively pure and white Quittacus waters would be brought in contact with the present swampy and shallow reservoir, and this is undesirable. The main cause of the unsatisfactory condition of the New Bedford water

to-day is the shallowness of the storage basin and the large amount of swampy and muddy lands which surround it. We have, as you suggested, treated these questions of additional supply of water in the ways that have been proposed, and when all this has been accomplished what additional accommodations will have been acquired? None. You have an abundant supply of water, but no place in the city to store it except in the distributing reservoir, which to-day holds only two days supply; and, besides, there are sections of your city which cannot be supplied except by means of a high service system, which would of necessity be maintained as a separate system with its independent engines, standpipe, etc., and it would soon have to be increased to meet the demands made upon it.

The main trouble with these suggested plans is that they proceed on the false assumption that the cheapest way to add to the present supply is to patch on another addition to the present system, already enlarged and outgrown. Your works were originally designed for a supposed ample but a limited supply, and they are now complete as a whole and well-balanced.

It is evident that by combining a high service system of small capacity, and by adding a new supply main from the ponds to the distributing reservoir, a saving can be made in first cost on the one we have recommended to you; but, when you consider the large annual increase on the cost of maintenance and the unsatisfactory conditions of adding to the supply in the future, it will be found to be at best an ill-advised and costly makeshift.

All the water used by your city has to be pumped, but it makes considerable difference if the pressure over the city is dependent on the constant action of the pumps, or is acquired by having an ample body of water sufficient for a week's supply stored on the top of an adjacent hill, all ready to be tapped and equal to any emergency.

A city like New Bedford, with its extensive mills and large manufacturing interests, should have several days supply of water in its distributing reservoir, which should be in or very near the limits of the city. At any time there is a liability of a fire in one of the large mills which may spread to a second mill, and a falling wall may at any time break one of the large street water-pipes, in which case the present fifteen-million-gallon reservoir would be soon emptied notwithstanding the working of your pumps, and disaster would come to your city.

With very few exceptions the manufacturing cities of New England have independent and separate supplies, which can be depended upon in case of failure of one supply;—for instance, in Lowell there are at the present time three sources of supply—three reservoirs and three isolated and independent pumping plants. In Lawrence there

are two independent pumping plants and two separate reservoirs, and in Manchester there are three separate pumping plants and three reservoirs.

It has been the experience of American cities that they have outgrown their water supplies almost as soon as built, and in presenting a plan for an additional supply we have endeavored to propose an economical scheme of works which will not be readily outgrown, and which can be easily extended in the future as occasion shall require.

Yours respectfully.

GEORGE S. RICE and GEORGE E. EVANS,
Civil Engineers.

On Monday, July 30, a conference was held with the Committee on Water Works and Water Supply of the City Council, at which a full statement was made descriptive of the proposed work. The plans were carefully examined and the Committee made acquainted with the facts in our possession.

On Thursday, August 12, a visit to the principal points of interest connected with the proposed supply was made by the City Council Committee on Water Works and Water Supply and the Water Board.

In response to an invitation from the New Bedford Board of Trade, received at a meeting held on August 20, the Water Board voted to appear before that body and present information relating to the proposed additional supply.

On Thursday evening, September 6, the subject was presented to the Board of Trade. This Board was represented upon that occasion by Edmund Wood, who gave an exhaustive statement relating to the proposed work.

At a meeting of the City Council held on Thursday evening, October 25, the Committee on Water Works and Water Supply reported endorsing the recommendations of this Board, and presented accompanying orders, which were referred to the Finance Committee.

The last named committee reported back to the City Council, at a meeting held on Thursday evening, November 8, recommending their passage.

They were then adopted. The following are copies of the order:—

CITY OF NEW BEDFORD,
IN COMMON COUNCIL, November 8, 1894.

Ordered, That the plan submitted by the New Bedford Water Board for increasing the water supply of the city is approved, and said Water Board is authorized and directed to make all appropriate surveys and examinations and to carry said plan into effect, and to exercise herein in the name of the city or otherwise all powers of the city in the premises, including those granted by Chapter 345 of the Acts of 1894, with the exception of those contained in Section 8 of said Chapter; provided that all expenses incurred under the authority of this order shall not exceed the sum of Twelve Hundred Thousand Dollars (\$1,200,000). It is also

Ordered, That at the first regular meetings of the City Council in the months of January, April, July and October of each year, and whenever required by the City Council, the New Bedford Water Board make and present in writing a particular report and statement of all their acts and proceedings, and of the condition and progress of the works aforesaid.

CITY OF NEW BEDFORD,
IN BOARD OF ALDERMEN, November 8, 1894.

Ordered, That the sum of Twelve Hundred Thousand Dollars (\$1,200,000) be and the same is hereby appropriated for the purpose of providing for further water supply for the City of New Bedford, under the Statute of 1894, Chapter 345; said sum to be placed to the credit of the account of further water supply for the City of New Bedford and to be used in paying all expenses to be incurred by the New Bedford Water Board under an order of the City Council of the City of New Bedford authorizing said New Bedford Water Board to expend said sum for said purpose; and

WHEREAS, To provide for said appropriation it is proposed to issue from time to time water bonds to an amount not exceeding Twelve Hundred Thousand Dollars (\$1,200,000) and payable not more than thirty years from the date of issue, it is also

Ordered, That the City Treasurer, under the direction of the Joint Standing Committee on Finance, be and is hereby authorized and directed to issue twelve hundred (1,200) bonds of the sum of one thous-

and dollars (\$1,000) each with interest payable in gold, if demanded, at four per cent. per annum, with semi-annual coupons providing for such interest.

Said bonds are to be from time to time issued and disposed of by the City Treasurer, under the direction of said Finance Committee, at not less than par. The proceeds of said bonds shall be placed to the credit of the further water supply of the City of New Bedford, and shall be applied to the expense thereof. Each of said bonds shall be denominated on its face "Water Bond of the City of New Bedford." —[*Act of 1894, Chapter 345.*]

They shall be numbered consecutively and be made payable in gold, if demanded, in thirty (30) years from their respective dates, and shall be signed by the City Treasurer, approved and countersigned by the Mayor, President of the Common Council and City Auditor, sealed and recorded as provided by the City Ordinances. It is also

Ordered, That as said bonds are from time to time issued, an amount equalling $\frac{2}{100}$ of the principal of each and every bond so issued shall be contributed and set apart from the receipts from water rates as and for a sinking fund for the extinguishment of said bonds at maturity; and in each and every year thereafter said water receipts shall contribute a like per centage to said sinking fund on all bonds outstanding under this water loan.

Said sinking fund shall be denominated the sinking fund in respect of the additional water supply under the Acts of 1894, Chapter 345, and shall be under the management of the Board of Commissioners of Sinking Funds of the City of New Bedford, to be managed according to law; and the annual contribution to said sinking fund from said water receipts shall be paid to said Commissioners on or before the 15th day of August in each and every year.

These are in outline the different steps taken during the year toward the solution of this most important problem.

It has taken the whole year for study and consultation, and only now at the very close has the matter ripened into definite action.

A complete and well-studied plan has been finally submitted to the City Council, they have accepted it, and authorized this Board to proceed and put it into execution.

This is the task now directly before us, and early in the year we hope to begin surveys and prepare proper plans

so that we may start upon the work of construction this summer.

In conclusion this Board wish to express to you their full appreciation of the importance of this enterprise, of the magnitude of the undertaking, and of the responsibility which you have put upon us.

Although the necessity of this proposed change is urgent, yet we believe that this year of study and counsel has not been lost time, and that the wisdom of the proposed scheme which has been finally decided on will be abundantly proved in the near future.

Respectfully submitted.

STEPHEN A. BROWNELL,
JOHN H. BARROWS,
DAVID B. KEMPTON,
EDMUND WOOD,
THOMAS B. TRIPP,

New Bedford Water Board.

Report of the Water Registrar.

CITY OF NEW BEDFORD.
WATER REGISTRAR'S OFFICE,

December 1, 1894.

To the New Bedford Water Board.

GENTLEMEN :—I herewith present to you the annual statement of my accounts as Water Registrar for the year ending at this date.

RECEIPTS.

Balance, Dec. 1, 1893,			\$43,503.21
Receipts for water :			
Rates, domestic,	\$76,677.46		
Rates, manufacturing,	6,838.73		
Appropriation for public buildings and fire hydrants,	12,000.00	\$95,516.19	
Receipts for services,		2,724.84	
Receipts for meters,		796.75	
Receipts for fines,		8.00	
Receipts for mains, mill piping, etc.,		5,333.17	
Received from other sources :			
Preliminary work, additional supply,	\$26.25		
Rent of Duffy house, near Long Pond,	25.00		
Sale of old boilers,	66.90		
Sale of hay,	44.70	162.85	104,541.80
			<hr/>
			\$148,045.01
Expenditures for the year ending Dec. 1, 1894,			84,135.92
			<hr/>
Balance, cash in treasury, Dec. 1, 1894,			\$63,909.09

EXPENDITURES.

MANAGEMENT AND REPAIRS.

(Payrolls cover 53 weeks.)

*Engineering and superintendence :*Salaries
per year.

\$2000	R. C. P. Coggeshall, sup't,	\$2,033.16	
1500	F. M. Ashley, foreman, 13 weeks and 4 days,	395.83	
1100	J. C. DeMello, Jr., foreman, 33 weeks and 1 day,	757.00	
800	S. H. Taylor, office ass't,	800.06	
200	F. L. Pope, Jr., office ass't,	211.92	
	Payroll, drawing plans,	47.26	\$4,245.23

Water Registrar :

1000	James H. Hathaway, water registrar,	\$1,016.58	
1000	Clifford Baylies, inspector,	1,016.58	
850	Arthur R. Weeks, insp'tor,	864.05	2,897.24
	Inspection and clerk hire :		
	Josepn P. Rose,	\$636.00	
	George W. Parker,	9.00	
	Clifford Baylies, post'g acct's,	10.00	
	Arthur R. Weeks, " "	10.00	
	Stephen H. Taylor, " "	10.00	
	Night inspection,	261.81	
	General inspection,	246.25	
	Distributing water bills,	72.50	
	Kirby & Hicks, carriage hire,	18.00	
	Labor turning off water,	69.25	1,342.81
			\$8,485.28

Pumping Expenses :

Engineers, firemen, and watchmen.

\$1500	A. S. Neagus, engineer,	\$1,524.86	
1025	Patrick Gibbons, assist. eng'r,	1,042.00	
	James H. Weeks, " "	711.00	
	H. F. Teachman, " "	658.00	
	C. J. Buckley, fireman,	628.50	
	E. F. Drown, " "	637.00	
	Michael Finn, " "	630.33	
	J. J. Da Silveira, laborer,	278.00	
	Antone S. Maciel, " "	58.00	
			\$6,167.69

Fuel for pumping engines,	5,204.82	
Oil, waste, packing, and gas,	259.12	
Other supplies,	29.24	
Repairs of engines,	423.87	
Repairs of boilers,	65.33	
Incidentals,	349.91	
Maintenance of engine house and lot,	754.43	\$13,254.41
<i>Maintenance of mains,</i>		\$1,654.27
<i>Services :</i>		
Labor and stock,	\$134.15	
New stop boxes, clearing taps, etc.,	792.00	
Plumbing,	446.20	1,372.35
Fountains and meters,		251.37
Water street work shop and pipe yard,		1,670.30
Receiving and distributing reservoir and stand pipe,		950.80
Storing reservoir, dam, and conduit,		413.08
Rent of telephones,		431.50
Stationery, printing, and advertising,		381.18
Traveling expenses and car fare,		240.20
Incidentals,		228.46
Repairing carriages,		155.01
Carriage hire,		168.00
Shoeing and maintenance of horses,		128.13
Taxes, Freetown and Acushnet,		53.38
Freight and express,		66.09
Clearing off snow,		51.47
Typewriting,		17.20
Puddling trenches,		7.01
Rain gauges,		56.75
Boat and carting,		51.00
Telephone dispatches and telegrams,		29.46
Postage,		47.34
Brush for blasting,		20.70
Painting tool house,		14.25
<i>Public Works :</i>		
Watchman at sewer,	\$52.72	
Blacksmithing,	13.13	
Board of horses,	715.12	
Registration clerk,	50.05	831.02
Repairs of house at storing reservoir,		29.99
Connection with Little Quittacus,		418.12
Supplies for meteorological instruments,		12.90
Permanent debt,		20,000.00
Sinking funds,		2,700.00
		\$54,191.02

EXTENSIONS.

Mains :

Main pipe and special castings,	\$8,470.91	
Labor laying mains,	4,480.52	
Lead, carting and blacksmith work,	1,976.31	
Other supplies,	400.62	
Stop gates, hydrants, etc.,	1,685.45	
Unloading pipe and wharfage,	595 64	\$17,609.45

Services :

Service pipe, lead and iron,	\$1,625.92	
Taps, stop boxes and other supplies,	1,787.21	
Labor laying services,	1,340.52	
Plumbing,	318.75	5,072.40
Mill piping,		178.87
Fountains and meters,		1,474.32
Electric lighting plant, pumping station,		16.89
Meteorological instruments,		28.43
Enlarging Little Quittacus connection,		3,814.76
New tower, engine house,		6.40
Preliminary work, additional supply,	1,743.38	\$29,944.90
Total expenditures for the year,		\$84,135.92
Whole outlay upon the works to this date,		\$2,279,888.85
Balance December 1, 1894,		63,909.09
		<u>\$2,343,797.94</u>

The receipts from the commencement of the works to this date have been as follows, viz : —

Appropriations by the City Council,	\$1,038,000.00
Receipts for water and other sources,	1,305,797.94
	<u>\$2,343,797.94</u>
Deduct total outlay,	2,279,888.85
Balance as above, December 1, 1894,	<u>\$63,909.09</u>
Outlay as above,	2,279,888.85

Deduct from outlay :

Paid for management and repairs,	\$514,734.04	
Interest paid,	73,788.14	
Bonds paid,	65,000.00	
Sinking funds,	6,300.00	659,822.18
Actual cost of works,		<u>\$1,620,066.67</u>

Total receipts for water,	\$1,305,797.94
Deduct the amount paid for maintenance, debt, interest, and sinking funds,	659,822.18
Water receipts applied to construction,	<u>\$645,975.76</u>

The funds for the construction of the works have been derived from the following sources, viz : —

Investment of Sylvia Ann Howland educational bequest,	\$100,000.00
Sylvia Ann Howland water bequest,	100,000.00
Received from sale of bonds,	815,000.00
Net receipts applied to construction,	645,975.76
Appropriation for construction in 1885,	23,000.00
Total,	<u>\$1,683,975.76</u>
Deduct balance December 1, 1894,	63,909.09
Cost of works as stated above,	<u>\$1,620,066.67</u>

The water debt at this date is as follows, viz : —

Water bonds, 7 per cent.,	\$100,000.00
“ 6 “	200,000.00
“ 5 “	100,000.00
“ 4 “	340,000.00
Sylvia Ann Howland bequest, 6 per cent.,	100,000.00
	<u>\$840,000.00</u>
Less sinking funds,	6,848.00
Net water debt December 1, 1894,	<u>\$833,152.00</u>
Outlay for management and repairs,	\$54,191.02
Outlay for extensions,	29,944.90
	<u>\$84,135.92</u>
Deductions :	
Receipts for services,	\$2,724.84
Receipts for meters sold,	796.75
Receipts for mains, etc.,	5,333.17
Receipts for fines and other sources,	170.85
	<u>9,025.61</u>
Net expenditures,	<u>\$75,110.31</u>
Amount appropriated by the City Council in 1894 for interest on water loan,	\$17,866.67
Net expenditures by the Water Board,	75,110.31
	<u>\$92,976.98</u>
Actual amount expended in 1894,	

Water receipts in 1894,	\$95,516.19
Water receipts in 1893,	92,877.61
	<hr/>
Increase in 1894,	\$2,638.58

There was, as shown by the foregoing statement, an increase in the amount received from domestic rates over 1893 of \$3,900, and a decrease in the receipts for manufacturing purposes of \$1,300; a net increase of \$2,600. The decrease in the receipts from manufactories is accounted for by the change made in the water supply; the larger factories now depending upon the river water for condensing purposes wholly, which is really a saving to the city, the rate charged being less than the cost of pumping.

Since April 1, 1888, there has been paid from the receipts for water all sums required for the extension of the works, the amounts required for management and repairs, \$70,406 toward the principal and interest on the water debt, together with \$6,300 for sinking funds, and there is now (December 1, 1894,) a balance of \$63,909.09 standing to the credit of the department; a portion of which I most respectfully recommend be applied toward the payment of the principal and interest due in 1895.

This indicates that notwithstanding the small rate charged for the use of water in New Bedford the amount received compares very favorably with other cities of the same size and industries, (the rate in most cases being more than double,) which fact is due principally to the more general use on that account.

Respectfully submitted.

JAMES H. HATHAWAY,
Water Registrar.

Report of the Superintendent.

NEW BEDFORD WATER WORKS,
SUPERINTENDENT'S OFFICE,

December 1, 1894.

To the New Bedford Water Board.

GENTLEMEN: — The Superintendent's twenty-fifth annual report of the operation of this department for the year ending December 1, 1894, is herewith respectfully presented.

The quality of the water has remained uniformly good throughout the entire year. It was especially free from color during the summer and early fall months. This was owing to the large proportion of Little Quittacus water which was then being supplied through the storing reservoir.

The results of the monthly examinations made by the State Board of Health appear in the accompanying statements. It is kindly supplied through the courtesy of their chief engineer, F. P. Stearns, Esq.

WATER ANALYSIS, STATE BOARD OF HEALTH.

PARTS IN 100,000.

Number	DATE OF		APPEARANCE			ODOR		RESIDUE ON EVAPORATION		AMMONIA			NITROGEN AS		Hardness	Iron	Oxygen Consumed			
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on ignition	Fixed	Free	ALBUMINOID		Nitrates				Nitrites		
												In solution	In suspension						Chlorine	*
11075	Jan. 24	1894 Jan. 25	Very slight.	Very slight.	1.45	Distinctly vegetable sweetish.	Decidedly vegetable sweetish.	5.85	2.50	3.35	.0012	.0152	.0144	.0008	.62	.0070	.0000	1.40	.0250	1.2877
11806	Feb. 26	Feb. 27	Very slight.	Very slight.	1.40	Decidedly vegetable sweetish.	Decidedly vegetable sweetish.	5.30	2.25	3.05	.0000	.0196	.0178	.0018	.47	.0050	.0000	1.30	.0400	1.1960
11955	Mar. 27	Mar. 28	Very slight.	Considerable.	1.00	mouldy.	Distinctly vegetable sweetish.	4.05	1.45	2.60	.0016	.0158	.0146	.0012	.45	.0100	.0000	.95	.0110	.8200
12088	Apr. 23	Apr. 24	Slight.	Considerable rusty.	1.50	Decidedly vegetable sweetish.	Decidedly vegetable sweetish.	4.25	2.00	2.25	.0012	.0160	.0128	.0032	.49	.0120	.0000	.80	.0150	.9630
12265	May 21	May 22	Slight.	Considerable brown.	1.40	Distinctly vegetable sweetish.	Distinctly vegetable sweetish.	4.30	2.25	2.05	.0008	.0184	.0160	.0024	.48	.0000	.0000	.90	...	.9360
12448	June 28	June 29	Very slight.	Slight.	1.70	Distinctly vegetable.	Distinctly vegetable.	5.05	2.65	2.40	.0002	.0202	.0186	.0016	.49	.0030	.0000	.90	.....	1.2081
12598	July 24	July 25	None.	Considerable brown flocks.	1.40	Faintly vegetable.	Faintly vegetable.	4.80	2.65	2.15	.0000	.0230	.0218	.0012	.52	.0040	.0000	.90	.....	1.1073
12784	Aug. 20	Aug. 21	Very slight.	Slight.	.85	None.	Distinctly vegetable.	3.95	1.50	2.45	.0000	.0194	.0174	.0020	.48	.0000	.0001	.80	.0500	.4774
13031	Sept. 25	Sept. 26	Very slight.	Slight.	.50	Distinctly vegetable, somewhat uns' sant.	Distinctly vegetable.	3.45	1.45	2.00	.0000	.0160	.0152	.0008	.50	.0060	.0000	.50	.0180	.4427
13187	Oct. 23	Oct. 24	Very slight.	Slight.	.45	Distinctly vegetable.	Distinctly vegetable.	3.75	1.40	2.35	.0000	.0178	.0170	.0008	.56	.0030	.0000	.90	.0150	.4479
13381	Nov. 27	Nov. 28	Very slight.	Slight.	1.40	Very faintly vegetable.	Distinctly vegetable sweetish.	6.60	3.15	3.45	.0036	.0264	.0248	.0016	.66	.0110	.0000	1.70	.0330	1.6646
13548	Dec. 26	Dec. 27	Very slight.	Very slight.	1.50	Distinctly vegetable.	Distinctly vegetable sweetish.	6.30	2.95	3.35	.0060	.0254	.0232	.0022	.64	.0080	.0000	1.80	.0200	1.2782

The samples were collected from the conduit at the entrance to the receiving reservoir.

Scale of colors:
0=Colorless.
1=Yellowish brown tint.
2=Deep yellowish brown tint.

WATER ANALYSIS. STATE BOARD OF HEALTH.

PARTS IN 100,000.

Number	DATE OF		APPEARANCE		ODOR		RESIDUE ON EVAPORAT'N			AMMONIA			NITROGEN AS		Hardness	Iron	Oxygen Consumed
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on ignition	Fixed	Free	Total	In solution	In suspension			
11956	Mar. 27	18 ⁹⁴ Mar. 28	Very slight.	Very slight.	.50	Distinctly vegetable.	Faintly vegetable.	3.20	1.15	2.05	.0000	.0163	0.154	.0012	.50	.0035	.5082
12447	June 28	June 29	Slight.	Very slight.	.67	Faintly vegetable.	Faintly vegetable.	3.85	2.00	1.85	.0000	0.172	.0156	.0016	.60	.....	.6006
13028	Sept. 25	Sept. 26	Very slight.	Very slight.	.30	Distinctly vegetable.	Distinctly vegetable.	2.85	.90	1.95	.0006	.0124	.0108	.0016	.60	.0030	.4004

These samples were collected from Great Quittacus pond.

Scale of colors :

0=Colorless.

1=Yellowish brown tint.

2=Deep yellowish brown tint.

WATER ANALYSIS. STATE BOARD OF HEALTH. PARTS IN 100,000.

Number	DATE OF		APPEARANCE		ODOR		RESIDUE ON EVAPORATION			AMMONIA			CHLORINE		NITROGEN AS		Hardness	Iron	Oxygen Consumed
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on ignition	Fixed	Free	Total	In solution	In suspension	Nitrates	Nitrites			
11957	Mar. 27	1894 Mar. 28	Slight.	Slight.	.12	Distinctly vegetable.	Very faintly vegetable.	2.75	.80	1.95	.0000	.0152	.0118	.0034	.0030	.0000	.80	.0060	.3465
12446	June 28	June 29	Distinct.	Slight green.	.20	Distinctly fragrant	Very faintly vegetable.	3.05	1.05	2.00	.0002	.0186	.0168	.0018	.0000	.0000	.60	.....	.3426
13029	Sept. 25	Sept. 26	Very slight.	Considerable.	.18	Distinctly vegetable.	Distinctly vegetable.	2.95	1.00	1.95	.0004	.0158	.0120	.0038	.0000	.0000	.50	.0110	.2787
13547	Dec. 26	Dec. 27	Very slight.	Very slight.	.20	Faintly vegetable.	Distinctly vegetable.	2.90	.95	1.95	.0000	.0166	.0142	.0024	.0000	.0000	.80	.2618	.0080

These samples were collected from Little Quittacus pond.

Scale of colors:

0=Colorless.

1=Yellowish brown tint.

2=Deep yellowish brown tint.

The storing reservoir has remained well filled during the entire year. The water level did not begin to settle until the middle of June, and the lowest level of the year, twelve inches below high water, was reached September 8. It then began to fill, and the flowage line was again touched on November 5.

The work of lowering and enlarging the connection between Little Quittacus pond and the storing reservoir, which was finished to within 1,400 feet of the pond last year, has been completed this year.

From the pond, measuring down the stream 5,900 feet, the sides are held in place by two-inch spruce planking four feet high and well braced. Thus a flume six feet wide is practically provided for this distance.

The entire cost of this work has been as follows: —

Labor,	\$7,011.49	
Tools and supplies,	359.15	
Lumber,	2,796.94	
Provisions and supplies,	608.50	
Carting,	84.00	
Railroad fares,	52.20	\$10,912.28

Of this amount \$3,814.76 has been expended this year.

The new flume emerges from Little Quittacus pond a short distance easterly from its former location, and as its bottom is $29\frac{1}{2}$ inches lower than the former outlet it is now possible to draw upon the pond to a correspondingly lower level.

This supply was first opened this year on June 22. From this date it was allowed to flow more or less as occasion required until September 25, when it was finally closed.

At this time the water in Little Quittacus pond had been drawn down to a point $66\frac{1}{2}$ inches below the highest level which has been recorded in past years, and was only eighteen inches in depth at the flume.

The maintenance of this flume, which is of temporary character, is for the purpose of keeping the storing reservoir as nearly filled as possible during the summer months, and until the permanent additional supply may be secured to the city.

At the present rate of consumption the storing reservoir would rapidly settle without the aid of this auxiliary supply.

It is therefore imperative that the storing reservoir be kept filled to its flowage level, that the largest delivery may be obtained through the conduit.

The wisdom of making this large expenditure for temporary work has been fully justified this very season, for without it the consumers would have been obliged to be content with a limited supply.

The severe and long continued drought, which extended from June to the latter part of September, made a heavy demand upon the storage capacity of all water supplies and caused them to rapidly diminish.

Even with the much enlarged supply which our work on the Quittacus flume this year gave us, the water finally fell to so low a level that it became necessary to take all possible measures to reduce the consumption, and although none of the consumers experienced serious inconvenience, yet the margin for maintaining a liberal supply was not large.

No work other than that necessary for ordinary maintenance has been done at the storing reservoir, or in connection with the conduit.

A large amount of work could be done with good results in connection with several points along the line of the conduit, but the present rate of consumption renders it impossible for it to be thrown out of commission except for a few hours occasionally. It will not be wise to attempt any repairs except those absolutely needed until

after the new supply shall be gained. The greatest apprehension which I have on account of this condition of the conduit is, not that its giving away at any part will cause a serious damage by flood, but rather that some imperative repair will absolutely compel its being thrown out of use for such a length of time as to deprive the entire city of its supply for a period so long as to seriously embarrass our many industries, as well as the domestic takers.

Every portion of the pumping station is in good condition, and no special repairs have been required at any part of the building.

A fifteen-ton Fairbanks platform scale has been placed in the driveway south of the boiler house.

The meteorological observations have been continued, and the summary of the monthly averages appears in the annexed tables.

Engine No. 1 (McAlpine) has been in operation 2,688½ hours, making 2,217,118 revolutions and pumping 649,-615,574 gallons.

Slight repairs have been made to the cross head over the main cylinder.

The cost of pumping has been as follows, viz. :—

Salaries, 17½ weeks,	at	\$118.61	\$2,046.00
434.2388 gross tons Pocahontas and Cumberland coal,	at	4.23	1,836.83
12.6339 gross tons Pocahontas coal,	at	4.20	53.06
1-16 cord white pine wood,	at	4.00	.25
30 gallons cylinder oil,	at	.43	12.90
15½ gallons sperm oil,	at	.96	15.24
40½ gallons lubricating oil,	at	.32	13.08
130 pounds waste,	at	.10	13.00
4 brooms,	at	.25	1.00
Proportion of maintenance of electric light plant,			70.56
Repairs to engine,			86.20
Repairs to boilers,			11.11
			\$4,159.23

Cost of raising water into distributing reservoir	
per million gallons,	\$6.40
Cost of raising water one foot high per million gallons,	4 $\frac{74}{100}$ cents.

Engine No. 2 (Worthington) has been in operation 974 hours, making 1,067,335 revolutions and pumping 157,-965,580 gallons.

The cost of pumping has been as follows, viz: —

Salaries, 5 $\frac{1}{4}$ weeks,	at	\$118.61	\$682.00
29.9553 gross tons Pocahontas			
and Cumberland coal,	at	4.23	126.71
106.5625 gross tons Pocahontas			
coal,	at	4.20	447.56
$\frac{1}{4}$ cord white pine wood,	at	4.00	1.00
19 $\frac{1}{8}$ gallons cylinder oil,	at	.43	8.44
$\frac{3}{4}$ gallons sperm oil,	at	.96	.72
5 $\frac{3}{4}$ gallons lubricating oil,	at	.32	1.84
44 pounds waste,	at	.10	4.40
3 brooms,	at	.25	.75
Proportion of maintenance of			
electric light plant,			24.75
Repairs to engine,			13.61
Repairs to boilers,		2.22	\$1,314.00
Cost of raising water into distributing reservoir			
per million gallons,			\$8.32
Cost of raising water one foot high per million gallons,			6 $\frac{55}{100}$ cents.

Engine No. 3 (Worthington High Duty) has been in operation 4,498 hours, making 4,947,479 revolutions and pumping 959,810,926 gallons of water.

The steam pistons on the No. 1 side have been renewed. Other repairs have been very slight.

The cost of pumping has been as follows: —

Salaries, 29 weeks,	at	\$118.61	\$3,439.69
288.3705 gross tons Pocahontas			
and Cumberland coal,	at	4.23	1,219.81
159.5089 gross tons Pocahontas			
coal,	at	4.20	669.94
99.2634 gross tons Pea coal,	at	5.00	496.32
$\frac{1}{8}$ cord white pine wood,	at	4.00	1.50

109 $\frac{3}{4}$ gallons cylinder oil,	at	.43	47.19	
3 $\frac{3}{4}$ gallons sperm oil,	at	.96	3.48	
57 $\frac{3}{4}$ gallons lubricating oil,	at	.32	18.48	
199 pounds waste,	at	.10	19.90	
10 pounds flax packing,	at	.50	5.00	
1 pound Eureka packing,		.55	.55	
4 pounds Garlocks packing,	at	1.20	4.80	
3 water glasses,	at	.20	.60	
5 brooms,	at	.25	1.25	
Proportions of maintenance				
electric light plant,			143.09	
Repairs to engine,			324.06	
Repairs to boiler,			52.00	\$6,447.66

Cost of raising water into distributing reservoir per million gallons, \$6.72

Cost of raising water one foot high per million gallons, 5 $\frac{27}{100}$ cents.

The total cost for the past year for pumping may be summarized as follows, viz. :—

1st. Figured on pumping station expenses, viz. :	\$11,920.89
Cost of fuel used,	\$4,852.98
Salaries engineers, fireman, watchman,	6,167.69
Cost of oil waste, packing and other supplies,	411.02
Repairs and alterations on machinery and boilers,	489.20
	\$11,920.89
Raising water into reservoir per million gallons,	\$6.74
Raising water one foot high per million gallons,	5 $\frac{18}{100}$ cents.
2d. Figured on total maintenance,	\$54,191.02
Raising water into reservoir per million gallons,	\$30.66
Raising water one foot high per million gallons,	23 $\frac{54}{100}$ cents.

The distributing mains have been increased 17,290 feet, and there has been removed 4,522 feet of pipe previously laid. The total number of miles of pipe now in use is 74.6525.

The following list of special work has been done in improving the distributing system. The placing of these

new lines has caused the removal of 3,233 feet of wrought iron cement-lined pipe of smaller size in each case.

North street, Purchase to Water, 800 feet, 10-inch; replacing 4 and 6-inch cast iron.

Middle street, Purchase to Water, 810 feet, 8-inch: replacing 6-inch cement lined.

South street, Water to County, 1,044 feet, 8-inch; replacing 6-inch cement lined.

Washington street, County to Bonney, 940 feet, 8-inch; replacing 4-inch cement lined.

Bonney street, Washington to Grinnell, 258 feet, 8-inch; replacing 4-inch cement lined.

Pleasant street, Union to William, 396 feet, 6-inch; replacing 4-inch cast iron.

William street, Purchase to Pleasant, 200 feet, 10-inch; replacing 4-inch cement lined.

This work required the placing of—

917 feet 10-inch cast iron pipe.

3,000 feet 8-inch cast iron pipe.

444 feet 6-inch cast iron pipe.

14 feet 4-inch cast iron pipe.

8 stop gates.

2 waste gates.

10 fire hydrants.

The cost was as follows:—

Pipe,	\$2,531.35	
Special castings,	336.10	
Gates,	269.60	
Hydrants,	360.00	
Lead,	279.60	
Gasket,	35.30	
Carting,	116.15	
Labor,	1,369.18	\$5,297.28
Credit by value of pipe and specials removed,		280.44
		<hr/>
		\$5,016.84

There have been ten leaks upon the mains the past year as herewith shown : —

DATE.	SIZE.	LOCATION.	CAUSE.	COST.
May 21.	16 in.	Cedar st. at Hillman.	Joint started.	\$2.67
July 2.	6 "	Bedford st west of Fourth.	" "	2.89
July 7.	8 "	County st. south of Mosher.	" "	2.06
July 12.	6 "	Blackmer st. east of Acushnet ave.	" "	1.84
July 12.	12 "	Front st. north of Cedar Grove.	Pipe burst.	17.18
July 31.	4 "	On bridge (south hydrant).	Joint started.	6.25
Sept. 4.	10 "	Bolton road south of Cottage road.	Joint started.	3.33
Sept. 10.	8 "	Wamsutta st. west of Front st.	Joint started.	6.50
Nov. 1.	8 "	Wamsutta st. cor. Front st.	Joint started, and 6-in. offset burst at hyd't.	8.25
Nov. 13.	2 "	In river.	Pipe burst.	18.25

When water was first introduced into this city in December, 1869, there was then in use 9.6949 miles of wrought iron cement lined pipe.

Owing to weakness in many places. portions of this amount have been removed from time to time, until there remains 6.6303 miles now in use.

With the introduction of water by the "High hill" system, some two years hence, an additional pressure of about 25 pounds will be placed upon the distributing system.

In view of the general weak character of this pipe, it will be very proper to replace it with cast iron pipe previous to the time when the proposed change of pressure shall be made.

I would therefore recommend that a liberal amount of this work be included in the operations of the coming year.

Two hundred sixty-two service pipes have been laid during the past year, and 26 of those previously laid have been removed. The total number now in use is 7,767.

One hundred eighty-three service taps have been cleared, as follows, viz.: rust, 167; eels, 9; trouble inside, 7.

Forty-two new hydrants have been set, and 20 of those previously set have been removed. The total number now in use is 607.

Forty-four stop gates have been set, and 17 of those previously set have been removed. The total number now in use is 835.

Two new waste gates have been set. The total number now in use is 76.

Four private stop gates have been set, and three of those previously set removed. The total number now in use is 172.

Nine hundred sixteen feet of small size distribution pipe (less than four-inch) have been laid, and 679 feet of that previously laid have been removed. Total length now in use, 6,181 feet.

The total number of small-sized stop gates (less than four-inch) is 65.

The total number of motors is 68.

The total number of meters is 222.

The horse bowl and drinking fountain on Bridge square have been removed and replaced by a Jenks fountain. The small drinking fountain on Hillman street west of County has been replaced by one of more improved pattern. A Jenks fountain has been set at the corner of Shawmut avenue and Durfee street.

The following tables, together with the annexed diagram, present interesting statistics in regard to the consumption, the fluctuation of the water level in the storing reservoir, and the rainfall.

MONTHLY CONSUMPTION AND RECORD OF PRESSURE
AT CITY HALL.

1894. MONTH.	Monthly Consumption. Gallons.	Daily Average. Gallons.	Pounds Pressure. 10 A. M.			Pounds Pressure. Midnight.		
			Max.	Min.	Av.	Max.	Min.	Av.
January.	159,117,539	5,132,824	35	32	32	37	34	36
February.	150,138,202	5,362,079	34	30	32	38	32	36
March.	142,732,322	4,604,268	35	29	32	38	35	37
April.	129,687,141	4,322,905	36	31	33	38	35	37
May.	148,070,266	4,776,460	35	29	32	39	35	37
June.	155,762,253	5,192,075	36	30	32	38	35	37
July.	174,028,662	5,613,828	35	29	32	38	35	36
August.	166,281,711	5,363,926	34	29	33	37	34	36
September.	141,902,453	4,730,082	35	30	32	38	34	36
October.	124,864,855	4,027,899	36	29	33	37	35	36
November.	118,939,869	3,964,662	35	31	32	37	33	36
December.	135,642,259	4,375,557	35	30	33	37	32	35
Averages.	145,597,294	4,786,760	35	30	32	38	34	36

COMPARISON OF THE CONSUMPTION OF THE YEAR 1894
WITH THE RECORD OF THE 13 PREVIOUS YEARS.

Year.	Estimated Population.	Estimated Number of Consumers.	Total Number of Gallons Consumed.	Average Daily Consumption.	Number of Taps.	Gallons per Day to Each Inhabitant.	Gallons per Day to Each Consumer.	Gallons per Day to Each Tap.
1881	27,000	19,044	844,249,647	2,313,012	3,985	86	122	589
1882	28,500	20,424	859,119,622	2,326,352	4 203	82	114	553
1883	30,000	22,249	849,059,700	2,326,191	4,465	78	105	521
1884	33,000	23,749	867,815,595	2,371,080	4,691	72	100	506
1885	33,700	25,375	1,049,801,050	2,876,167	4,965	85	113	579
1886	34,500	28,480	1,086,534,615	2,976,807	5,225	86	104	569
1887	36,000	30,080	1,112,302,789	3,047,404	5,495	85	101	555
1888	37,500	31,826	1,229,841,794	3,360,223	5,785	89	109	581
1889	40,000	34,000	1,310,488,214	3,590,379	6,104	90	106	588
1890	41,500	35,740	1,485,143,213	4,066,200	6,394	98	114	636
1891	45,000	38,500	1,513,161,482	4,145,648	6,742	92	108	615
1892	50,000	41,776	1,607,955,166	4,393,320	7,134	88	105	616
1893	55,000	44,158	1,824,275,536	4,998,015	7,531	99	113	664
1894	56,000	44,661	1,747,167,532	4,786,760	7,767	85	107	616

The rate of consumption shows a slight decrease from the figures of last year.

The maximum daily consumption was on Monday, July 30, — 7,093,580 gallons — and the minimum was on Sunday, October 28, — 3,017,055.

It has exceeded 7,000,000 gallons on one day, has been in excess of 6,500,000 gallons on three days, and has surpassed 6,000,000 gallons on nineteen days.

This past season has been marked by a severe drought, extending from June to the latter part of September. The low condition of the Little Quittacus supply in the early September days, together with the marked tendency of the storing reservoir to fail in delivering the usual amount, caused considerable anxiety for a few weeks. Active measures were taken to reduce the consumption, with good results. On September 8, and some weeks following, a notice appeared in the daily papers urging the utmost economy in the use of water. To this the consumers very generally responded. At the same time a party of night inspectors were put to work visiting the curb stops upon the supply to the premises of each taker. By means of a steel rod applied to this stop, the existence of a flow of water within the premises can be quickly detected. The hours for making these visits was between 10 o'clock at night and 4 o'clock in the morning. During these hours there is not likely to be a legitimate use of water except in special cases, and if water is found running the chances are largely in favor of a wastage.

The night party report their findings to the inspectors early the next morning, and each case of waste is followed up until repairs are made. Thirty-six nights have been given to this work. The number of leaks discovered and stopped were 989. Of this number, 578 were defective water closets. The total cost of this inspection was

\$261.81, and for the 61 days of October and November the consumption shows a daily average saving of 648,888 gallons, as compared with the corresponding time of last year.

The benefit of this work will continue for some weeks without further expense on our part. When considered as simply covering the two months referred to, the average daily expense was \$4.29. If the application of this amount will save 648,000 gallons daily, to say nothing of the economical effect for a much larger period, it is surely in the interests of economy to continue this practice.

Probably this method of working often has a moral effect upon the owner of other property in which a leak of some sort exists. The very fact that attention has been called to a defect in a neighboring house often causes a consumer to institute repairs to a leak upon his supply before the inspectors reach his premises.

The increased water supply scheme is now well in hand, and is to be constructed with all possible dispatch; consequently there is no need of special remarks from me at this time bearing upon this point, except to say that the object lesson of the past few months conclusively proves the urgent need of this new work, and as the consumption will naturally increase, we shall indeed be fortunate if we are not somewhat restricted in our supply before we can avail ourselves of this new plant.

Several experimental meters have been placed during the past year, and the result of their work appears in the following tables.

They are located in different parts of the city, and each represents a type of a number of similar cases. Their locations were particularly selected as exponent of places where a large amount of water is supposed to be used.

The first column shows the character of the supply. The second states the cost to the taker according to the regular tariff of schedule rates, and the third shows the cost if a charge at the rate of 15 cents per thousand gallons for the volume used had been made.

	By Schedule Rate.	Metered at 15 cts. per 1,000 gals.
1 Tenement house containing 6 families, 7 faucets 3 w. c.	11 months, \$27.50	11 months, \$82.78
2 Tenement house containing 3 families, 3 faucets 3 w. c.	11 months, \$13.75	11 months, \$32.76
3 Tenement house containing 5 families, 5 faucets 2 w. c. Drug store, 2 faucets and tumbler wash Store, 1 faucet 1 w. c. 1 hose 1 horse	11 months, \$36.63	11 months, \$76.84
4 Tenement house containing 7 families, 7 faucets 6 w. c. Market, 1 faucet 1 w. c. 1 horse	11 months, \$38.50	11 months, \$52.91
5 Tenement house containing 8 families, 8 faucets 4 w. c. Rear, 1 family, 1 faucet 1 w. c.	11 months, \$35.75	11 months, \$96.09
6 Tenement house containing 7 families, 7 faucets 3 w. c. Store, 1 faucet 2 horses 1 cow	11 months, \$33.00	11 months, \$44.63
7 Tenement house containing 6 families, 6 faucets 3 w. c. Laundry, 1 faucet		

		By Schedule Rate.	Metered at 15 cts. per 1,000 gals.
	1 w. c. 1 hose Store, 1 faucet 1 w. c. Drug store, 2 faucets 1 w. c. 1 hose 1 tumbler wash	11 months, \$46.31	11 mos., \$187.08
8	Tenement house containing 16 families, 16 faucets 6 w. c. Rear, 2 families, 2 faucets 1 w. c. Bakery, 2 faucets 1 w. c. 1 hose Two stores, 2 faucets 2 w. c. 1 hose	11 months, \$89.10	11 months, \$91.10
9	Tenement house containing 4 families, 4 faucets 4 w. c. Bakery, 1 faucet 1 w. c. 2 horses Market, 1 faucet	11 months, \$31.68	11 mos., \$110.82
10	Tenement house containing 5 families, 5 faucets 3 w. c. Store, 1 faucet 1 w. c.	11 months, \$24.75	11 months, \$44.43
11	Tenement house containing 6 families, 6 faucets 3 w. c. Saloon, 4 faucets 2 w. c. 1 motor	11 months, \$39.16	11 mos., \$104.23
12	School house containing 16 faucets 3 w. c. 1 boiler 1 hose 1 urinal	11 months, \$68.97	11 mos., \$168.84

	By Schedule Rate.	Metered at 15 cts. per 1,000 gals.
13 School house containing 16 faucets 3 w. c. 1 hose	11 months, \$51.59	11 months, \$95.08
14 Liquor saloon containing 1 motor	7 months, \$2.94	7 months, \$24.02
15 Liquor saloon containing 1 motor	7 months, \$2.94	7 months, \$3.89
16 Building containing 13 faucets 3 shower baths 5 w. c. 2 bath tubs 1 boiler	11 months, \$33.22	11 months, \$30.12
17 Building containing 6 faucets 6 w. c. 1 urinal 1 hose 1 boiler	6 months, \$18.87	6 months, \$75.26
18 Building containing 1 boiler	8 months, \$2.64	8 months, \$6.79
19 Building containing 5 faucets 2 w. c. 1 shower bath	11 months, \$11.22	11 months, \$22.03
20 A watering cart hydrant	Public use	5 months, \$168.79
21 Oak Grove cemetery	Public use	12 months, \$17.74
22 Rural cemetery	Public use	12 mos., \$216.96

It would seem from this statement that a large number of meters could be placed at the expense of this department with good results, provided the payment of meter rates, in preference to the schedule rates, be exacted in all such cases.

Many of our public buildings use their water supply in a most lavish manner. If each department were obliged

to pay from its own funds for the amount of measured water actually used in its own operations, instead of being allowed the utmost freedom without any check, as is now the practice, it is certain that much less water would be found ample. Cannot some system be devised whereby the excessive waste in the city's own supplies shall be lessened?

The usual tables will be found in the following pages. Mr. Thomas R. Rodman kindly contributes a copy of his rainfall record.

Respectfully submitted.

R. C. P. COGGESHALL,
Superintendent.

TABLE A.

SHOWING RAINFALL AT STORING RESERVOIR FOR 1894.

DAY.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1						.26				.19	.02	
2						.20						
3							.40	.74			.70	1.25
4						.24		.25				
5		.31		1.72			.14			1.28		
6				.12		.24					2.10	
7					.75	.06						
8					.02				.04		.15	
9				.35							.18	
10		.56									.52	.75
11	.05									.70		
12	.35			1.06						2.12		.58
13				.72				.38				
14		2.05	.24	.57						1.74	.30	
15		.52							.06			
16							1.10	.13				
17	.35								.21		.40	
18		.50										
19		.41			.32							
20			.30						2.81			
21											.46	
22												
23			.55								.11	
24					1.85	.13	.40					
25	.75				.26						.14	.58
26										2.82		
27	2.20	.75										3.03
28												
29					1.03							
30	1.76		.82			.70						
31					.79					.59		
TOTALS.	5.46	5.10	1.91	4.54	5.02	1.83	2.04	1.50	3.12	9.44	5.08	6.19

Total fall for the year, 51.23.

TABLE A.

SHOWING RAINFALL AT PUMPING STATION FOR 1894.

DAY.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1		.05				.22	.11			.13		
2						.03	.06	.02		.04	.62	.74
3					.01	.01		1.20				
4				1.80	.01	.01	.04			.59		
5	.02	.29		.08	.28	.06					2.05	
6			.02		.07	.05						
7	.07								.06			
8				.67				.07		.46		
9		.55							.04	1.35	.51	.64
10	.07		.05									.36
11	.20			1.10								
12		.90						.38			.05	
13			.18	.38			.08	.03		.97	.12	
14		1.18							.78			
15	.28		.13				.04	.20	.02		.30	
16		.53			.02				.01			
17					.42						.09	
18	.21	.44		.05	.02			.06	1.91		.29	
19		.03				.01						
20			.20	.13			.02				.02	
21			.49								.04	
22				.03		.04	.45				.05	.73
23	.55			.04	1.95							
24		.21								3.70		
25						.01					.01	3.07
26	2.28	.52		.02		.03						
27					.78							.30
28						.30		.02	.07		.10	
29	1.45		.60							.39		
30					1.05							
31												
TOTALS.	5.13	4.49	1.88	4.30	4.60	.77	.80	1.98	2.91	7.63	4.25	5.84

Total fall for the year, 44.58.

TABLE A.

SHOWING RAINFALL AT NEW BEDFORD, AS REGISTERED
BY T. R. RODMAN, FOR 1894.

DAY.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1		.07				.35				.10		
2						.03	.09					
3							.04	1.07		.06	.62	.76
4					.01			.41				
5		.44		1.64	.01	.01	.06			.62		
6				.05	.35	.07					2.20	
7	.08				.04	.03						
8									.05			
9				.70				.13		.56	.23	.38
10		.63							.05	1.40	.42	.30
11	.16				.01							.05
12	.21											.16
13		1.13						.43				.09
14			.16	2.28			.15			1.02	.19	
15		1.20							.88			
16	.31		.12					.09	.11			
17											.32	
18		.42			.02							
19	.18				.36						.08	
20		.42			.07	.01		.04	1.64			
21		.02		.04		.01					.29	
22			.16	.11			.05					
23			.54									
24				.16	1.84	.04	.35				.04	
25	.38				.06						.05	.84
26		.85	.22									
27	2.25									3.64		3.08
28				.01		.01						
29					.70							.05
30	1.28		.64			.34		.01	.10		.11	
31					1.00					.24		.02
TOTALS.	4.85	5.18	1.84	4.99	4.46	.90	.74	2.18	2.83	7.64	4.55	5.73

Total fall for the year, 45.89.

TABLE A.

SUMMARY OF MONTHLY METEOROLOGICAL OBSERVATIONS AT THE PUMPING STATION, FOR THE YEAR 1894.

MONTHS.	BAROMETER REDUCED TO SEA LEVEL AND TO 32°.							THERMOMETERS.							RELATIVE HU- MIDITY.				WIND.										WEATHER.					RAIN AND SNOW.			MONTHS.
	7 A. M.	2 P. M.	9 P. M.	Mean	Maximum	Minimum	Range	7 A. M.	2 P. M.	9 P. M.	Mean	Maximum	Minimum	Range	7 A. M.	2 P. M.	9 P. M.	Mean	PREVAILING DIRECTION. — NUMBER OF DAYS IT WAS										ATMOSPHERE. — NO. OF DAYS IT WAS					Amount of rain in inches	Depth of snow in inches		
																			N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Variable	Mean velocity in miles per hour	Clear	Fair	Variable	Rain or Snow	All oth- ers			Mean amount of cloud	
January.	30.22	30.19	30.23	30.21	30.78	28.84	1.94	26.5	35.2	30.5	30.5	38.9	23.1	52.5	86.7	71.8	84.4	80.8	3	3	1	1	2	3	10	2	6	10.	5	8	6	12	5.5	5.13	14.	27 January.	
February.	30.20	30.14	30.21	30.18	30.91	29.18	1.73	29.2	31.5	25.9	26.9	34.9	17.8	57.0	80.0	74.2	84.3	78.9	2	5			2	5	7	3	4	11.	5	9	3	11	5.0	4.49	19.	February.	
March.	30.17	30.13	30.15	30.15	30.60	29.59	1.01	36.1	46.5	39.2	40.3	49.3	32.8	42.0	82.4	62.4	76.7	73.6		1		3	4	8	1	2	6	10.1	5	12	2	12	4.3	1.82	1.	March.	
April.	30.09	30.07	30.09	30.09	30.53	29.73	.80	42.2	49.4	42.1	44.4	52.7	36.3	52.0	78.6	65.3	85.5	75.4	5	4				3	10	1	3	4	13.1	10	4	5	12	5.2	4.30		April.
May.	30.06	30.03	30.05	30.05	30.51	29.66	.85	54.2	62.7	53.4	56.5	65.6	46.1	52.0	81.8	70.6	85.2	80.2	2	4	1	4	4	7	2	2	5	9.7	12	2	5	12	4.9	4.00		May.	
June.	30.06	30.04	30.05	30.05	30.56	29.65	.71	62.9	71.6	62.5	65.3	75.1	56.5	49.0	84.7	68.8	84.0	79.0		2	1			21	4		2	9.9	8	5	6	11	5.4	.77		June.	
July.	30.03	30.05	30.06	30.05	30.33	29.05	1.28	69.0	78.4	68.4	71.9	81.5	62.7	45.0	81.9	64.5	85.8	78.2	2				3	20	3		3	8.8	14	7	3	7	3.5	.80		July.	
August.	30.05	30.06	30.07	30.06	30.36	29.05	1.21	63.6	72.8	64.0	66.5	75.1	57.1	39.0	87.3	65.3	85.5	79.2	5		1	1	13	4		7	8.9	10	10	5	6	4.6	1.98		August.		
September.	30.18	30.15	30.15	30.16	30.62	29.74	.88	60.9	71.4	62.3	64.7	73.4	55.6	44.5	89.1	63.6	87.1	79.9		7	1			13	3	1	5	8.8	13	6	2	5	4.4	2.91		September.	
October.	30.03	29.98	30.02	30.01	30.42	29.22	1.20	56.5	69.2	52.2	53.7	61.5	45.4	40.0	85.3	64.7	80.5	76.9	1	6	1	1	2	4	8	1	7	11.8	10	7	3	11	4.7	7.63		October.	
November.	30.07	30.04	29.73	30.05	30.21	29.89	1.44	36.0	43.5	38.6	39.1	47.4	31.3	51.0	81.3	70.4	79.1	76.8	2	2		3	4	11	6	2	11.4	14	1	15	9	4.6	4.23	3.	November.		
December.	30.13	30.10	30.12	30.12	30.33	29.99	1.14	27.9	38.1	31.6	32.2	41.4	24.4	51.0	83.3	67.9	80.3	77.0	3	2	3		1	5	7	4	6	8.8	11	7		13	4.4	5.84	6.25	December.	
Means for the Year.	30.11	30.08	30.08	30.10			1.18	46.1	55.0	47.6	49.3			47.9	83.8	67.5	83.2	78.0																4.7			Means for the Year.
Totals for the Year.																				16	43	9	11	25	113	67	24	57		117	78	39	131		44.56	43.25	Totals for the Year.
Extremes.					30.91	28.84	2.07						81.5	17.8	63.7																					Extremes.	

TABLE B.

STATEMENT OF WORK DONE BY ENGINE NO. 1 [McALPINE] FOR YEAR ENDING DECEMBER 1, 1894.

Diameter of steam cylinder, 38 in.

Length of stroke, 8 feet.

Average working steam pressure, 30 lbs.

MONTHS.	Number of days or parts of days pumping	H.	M.	Total pumping time per month	Total number of strokes per month	Average number of strokes per minute	FUEL.										Total number of gallons pumped per month, allowance being made for slip	No. of gallons pumped per pound of coal for total coal	No. of gallons raised 100 feet per pound of coal for total coal	Av. dynamic head against pump in feet, no allowance for friction in suction	Av. duty in lbs. raised one foot high per 100 pounds of coal, calculated on total fuel used for all purposes, no deductions	Av. duty in lbs. raised one foot high per 100 lbs. of coal, calculated on amount of combustible coal used while pumping
							COAL.						Total Fuel									
							Wood— 3 = Coal	Raising steam and banking	Asbes and clinkers	Pumping	Total	LBS.	LBS.	LBS.	LBS.	GALS.						
1893							LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	GALS.	GALS.	FEET.	LBS.	LBS.				
December.	30	548		452,269	14		8,800	17,040	187,160	213,000	213,000	213,000	132,514,817	622	837	134.65	69,894,611	79,510,377				
1894																						
January.	31	626		502,502	13		5,200	18,300	205,250	228,750	228,750	228,750	147,333,086	641	869	135.21	72,580,369	80,890,454				
February.	30	652	30	531,955	13.6		2,400	18,788	213,912	235,100	235,100	235,100	155,802,815	603	893	134.76	74,510,407	81,890,669				
March.	31	699	30	587,891	14		2,300	20,624	234,871	257,795	257,795	257,795	172,252,063	668	904	135.33	75,404,017	82,774,233				
April.	4	94	30	84,222	14.8			3,044	35,006	38,050	38,050	38,050	24,677,046	649	874	134.61	72,808,404	79,139,637				
September.																						
October.																						
November.	4	68		58,279	14.3		2,000	3,396	22,504	28,300	28,300	28,300	17,075,747	603	813	134.84	67,854,409	83,840,367				
Totals and Av.	130	2638	30	2,217,118	13.7		20,700	81,192	899,103	1,000,995	1,001,028	1,001,028	649,615,374	649	877	135.06	73,097,580	81,384,140				

TABLE B.

STATEMENT OF WORK DONE BY ENGINE NO. 2 [WORTHINGTON] FOR THE YEAR ENDING DEC. 1, 1894.

Diameter of H. P. steam cylinder, 22 in.
Diameter of L. P. steam cylinder, 36 in.

Length of stroke, 36½ in.

Av. working steam pressure, 30 lbs.

MONTHS.	Number of days or parts of days pumping	H.	M.	Total pumping time per month	Total number of strokes per month	Average number of strokes per minute	FUEL.										Total number of gallons pumped per month, allowance being made for slip	No. of gallons pumped per pound of coal for total coal	No. of gallons raised 100 feet per pound of coal for total coal	Av. dynamic head against pump in feet, no allowance for friction in suction	Av. duty in lbs. raised on total fuel used for all purposes, no deductions	LBS.	Av. duty in lbs. raised one foot high per 100 lbs. of coal, calculated on amount of combustible coal used while pumping	
							Raising steam and banking			Ashes and clinkers		Pumping		Total		Total Fuel								
							LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	GALS.	GALS.								
																								Wood	3	= Coal
							LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	GALS.	GALS.	FEET.	LBS.	LBS.							
1893 December.	1	12			12,685	18			352	4,048	4,400	4,400	1,877,380	427	546	128.04	45,562,886		49,524,876					
1894 January.		30			27,330	15			684	7,866	8,550	8,550	4,044,840	473	600	127.01	50,111,707		54,469,247					
February.	3	164			186,878	19			4,352	49,818	54,150	54,217	27,657,944	511	647	126.68	53,896,246		58,655,361					
March.																								
April.																								
May.																								
June.																								
July.																								
August.	3	53			58,913	18.5			2,124	15,576	17,700	17,700	8,719,124	493	623	126.46	51,953,979		59,038,613					
September.	4	88			96,596	18			3,480	24,520	29,000	29,067	14,296,208	493	629	127.65	52,860,950		62,070,788					
October.																								
November.	27	627			684,933	18			23,630	168,970	192,000	192,000	101,870,084	528	671	127.02	55,930,247		63,535,337					
Totals and Av.	45	974			1,067,335	18			34,002	270,798	305,800	305,933	157,965,580	516	655	127.01	54,694,053		61,790,396					

TABLE B.

STATEMENT OF WORK DONE BY ENGINE NO. 3 [WORTHINGTON HIGH DUTY] FOR THE YEAR ENDING
DECEMBER 1, 1894.

Diameter of H. P. steam cylinder, 18 in.
Diameter of L. P. steam cylinder, 36 in.

Length of stroke, 26 in.

Av. working steam pressure, 110 lbs.

MONTHS.	Number of days or parts of days pumping	Total pumping time per month		Total number of strokes	Average number of strokes per minute	FUEL.											
		H.	M.			COAL.					Total Fuel						
						Lbs. of Wood	Wood $\frac{1}{3}$ = Coal	Raising steam and banking	Ashes and clinkers	Pumping	Total	LBS.	LBS.	GALS.	Total number of gallons pumped per month, allowance being made for slip	No. of gallons pumped for total coal	No. of gallons raised 100 feet per pound of coal for total coal	Av. dynamic head against pump in feet, no allowance for friction in suction	Av. duty in lbs. raised one foot high per 100 lbs. of coal, calculated on amount of combustible coal used while pumping
LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	LBS.	GALS.	GALS.	GALS.	GALS.	FEET.	LBS.	LBS.			
1893	31	716	30	797,848	19	100	1,300	22,884	183,866	208,450	208,483	154,782,512	742	948	127.86	79,108,423	89,707,930
December.	31	733	30	814,591	19	100	1,600	22,788	186,312	210,700	210,733	188,030,654	750	957	127.72	79,879,208	90,349,441
1894	28	669		752,556	19												
January.	24	551	30	586,248	18		500	14,540	167,210	181,750	181,750	143,969,864	803	1,021	127.15	85,182,085	92,580,283
February.	24	551	30	586,248	18		500	11,452	131,198	143,150	143,150	113,732,112	794	1,013	127.65	84,582,131	92,287,474
March.	1	3	30	3,797	18	100		320	1,680	2,000	2,033	733,613	369	465	126.15	38,120,471	46,130,308
April.																	
May.																	
June.																	
July.																	
August.	27	642		733,046	19.1	240	2,050	19,484	158,616	180,150	180,230	142,385,524	790	1,004	127.11	83,749,944	95,162,231
September.	29	615	30	690,093	18.7		2,500	19,422	139,928	139,928	161,850	133,878,042	827	1,058	127.89	88,226,548	102,048,673
October.	27	566	30	568,400	17		2,800	16,486	118,264	137,550	137,550	110,269,600	802	1,022	127.44	85,265,380	99,100,318
November.																	
Totals and Av.	198	4,498		4,947,479	18.3	540	10,750	127,376	1,087,074	1,225,600	1,225,780	959,810,926	783	968	127.55	83,925,142	93,923,246

TABLE C.

LOCATION AND SIZE OF PIPE LAID IN 1894.

STREETS.	CAST IRON			
	10 inch.	8 inch.	6 inch.	4 inch.
Bay street, Cottage street east,			129	
Bay street, from 199 feet west of Ward to Columbia street,			80	
Beetle street, Bowditch street east.			242	
Bonney street, Washington to 4.5 feet north of north line Grinnell street,		258		
Bourne street, from 145 feet north of Fruit to Thompson street,			208	
Bowditch street, Sawyer to Holly street.			329	
Chancery street, from 338 feet south of Arnold to Hawthorn street.				391
Chancery street, from 82 feet north of Union to Court street,				150
Chancery street, from 106 feet south of Kempton to Middle street.			237	
Church street, Coffin avenue to Hathaway avenue,	1231			
Clark street, Ashland street east,			104	
Cleveland avenue, from Cove street south,			315	
Cottage street, from Durfee street south.		92		
County street, from 75 feet north of Penniman to Cedar Grove street.			198	
County street, from Peckham street south,			30	
County street, Peckham street north,		14		
County street, from 14 feet north of Peckham street main north,			28	
Davis street, Acushnet avenue east,			856	
Elm street, from 67 feet east of Newton to 82 feet west of Park.			188	
Field street, from 351 feet south of Babbitt to Hollyhock street,			347	
Fourth street, from 141 feet south of Thompson to Rivet street.				273
Gifford street, from 3 feet west of east line of Harbor street east,			304	
Glover street, Austin street north,			121	
Harbor street, from 11 feet south of Gifford to 543 feet north of Cove street,		377		
Hathaway avenue, Church street east,			271	
Highland street, Durfee street north,			445	
Hillman street, from 133 feet west of Park street west			54	
Holly street, Bowditch street west,			580	
Hollyhock street, from Field street east,			165	
Howard avenue, Acushnet avenue east,			400	
Hunter street, North street north,			194	

LOCATION AND SIZE OF PIPE.—*Continued.*

STREETS.	CAST IRON.			
	10 inch.	8 inch.	6 inch.	4 inch.
Locust street, from 47 feet east of Shawmut avenue to Richmond street,		226		
Maxfield street, from 337 feet west of Ash street west,		48		
Middle street, from 6 feet east of east line Purchase to Water street,		810		
Morton's court, from 258 feet north of Cove street north.				127
North street, from 180 feet west of Hunter street west,			180	
North street, from 5 feet east of west line Water to 3 feet east from east line Purchase street,	800			
Orchard street, Hawthorn street south,			319	
Pierce street, Elm to Kempton street,			568	
Pleasant street, from 2 feet south from south line William to Union street,			396	
River street, Acushnet avenue west.			171	
Rockland street, from 13.5 feet west of Orchard to Hemlock street,		647		
Sawyer street (north side), from 750 feet east of Belleville avenue east,			180	
Shawmut avenue, from 302 feet north of Locust to 84 feet south of Austin street,		711		
Shawmut avenue, from 196 feet north of Austin to 127 feet south of Durfee street,		252		
South street, from 6 feet west of Water to 6 feet east of County street,	1044			
Stone street, Allen street south,				223
Thompson street, Bourne street east,			80	
Turner's court, Acushnet avenue east,				223
Union street, Armour street east,			192	
Ward street, Allen to Bay street,			241	
Washington street, County to Bonney street,		940		
Water street, from 12 feet north to 12 feet south of Union street,	69			
William street, from 23 feet west of Purchase to east line of Pleasant street,	200			
Willow street, from 250 feet west of Bullock street to Shawmut avenue,			32	
Totals,	1069	6650	8184	1387

MAIN PIPE REMOVED IN 1894.

STREETS.	CAST IRON		CEMENT LINED	
	6 inch.	4 inch.	6 inch.	4 inch.
Bonney street, Washington to 4½ feet north of Grinnell street,				258
Middle street, Water to 6 feet east of Purchase,			810	
North street, from 5 feet east of Water to Second street.	338			
North street, Second to 3 feet east of Pur- chase street,		467		
Pleasant street, Union to 2 feet south of William street,		392		
South street, from 6 feet west of Water to 6 feet east of County street,			1043	
Washington street, County street west, Washington street, from 5 feet west of County to Bonney street,	23			924
Water street, from 12 feet north to 12 feet south of Union street,	69			
William street, from 23 feet west of Pur- chase to 5 feet east of Pleasant,				198
Totals,	430	859	1853	1380

SUMMARY.

PIPE LAID AND REMOVED.

	30 inch	24 inch	20 inch	16 inch	12 inch	10 inch	8 inch	6 inch	4 inch
Previous to 1894 :— Cement, Cast iron, Cast iron laid during 1894,	1,879	2,373	11,267	19,511	6,179 14,306	2,059 26,065 1,069	5,911 69,987 6,650	8,222 113,185 8,184	15,870 84,583 1,387
Total pipe laid, Cement removed in 1894, Cast iron removed in 1894,	1,879	2,373	11,267	19,511	20,485	29,193	82,548	129,591 1,853 430	101,840 1,380 859
Total pipe now in use,	1,879	2,373	11,267	19,511	20,485	29,193	82,548	127,308	99,601

Total length laid in 1894, 17,290 feet, or 3.2746 miles.
 Total length removed in 1894, 4,522 feet, or 0.8564 miles.
 Total length of pipe in use Dec. 1, 1894, 394,165 feet, or 74.6525 miles.

TABLE D.

SMALL-SIZED DISTRIBUTION PIPE LAID IN 1894.

STREETS.	IRON	LEAD
	3 inch	1 inch
Berlin court, Church street west,	193	
Bridge street, from 83 feet west of east line Fish		
Island west,	321	
Davis street, Church street west,	198	
Fish Island, from siphon to Bridge street,	123	
Trinity street, from 146 feet west of Cedar street		
west,		81
Totals,	835	81

REMOVED.

STREETS.	IRON	LEAD
	2 inch	1 inch
Bridge street, from street on Fish Island west,	321	
Fish Island from siphon to Bridge street,	129	
Turner's court, Acushnet avenue east,		229
Totals,	450	229

Laid previous to 1894, 5,944 feet.
 Laid during 1894, 916 feet.
 Removed during 1894, 679 feet.
 Total length in use, Dec. 1, 1894, 6,181 feet, or 1.1707 miles.

TABLE E.
LOCATION OF STOP GATES SET IN 1894.

STREETS.	LOCATION.	SIZE.				
		16 inch.	10 inch.	8 inch.	6 inch.	4 inch.
Acushnet ave.,	South side North.				1	
Bonney,	North side Grinnell.			1		
Bonney,	South side Grinnell.			1		
Bonney,	South side Rockland.					1
Bowditch,	North side Sawyer.				1	
Chancery,	South side Court.					1
Chancery,	North side Hawthorn.					1
Church,	North side Coffin ave.			1		
Cleveland ave.,	South side Cove.				1	
Cottage,	South side Durfee.			1		
County,	North side Peckham.				1	
County,	South side Peckham.				1	
County,	South side Cedar Grove.				1	
Davis,	East side Acushnet ave.				1	
Elm,	West side Park.				1	
Fourth,	North side Rivet.					1
Front,	At hydrant southwest cor- ner Logan.				1	
Front,	At hydrant west side south of Logan.				1	
Front,	At hydrant west side north of Wamsutta.				1	
Front,	At hydrant southeast cor- ner Wamsutta.				1	
Front,	South side Middle.				1	
Hathaway ave.,	East side Church.				1	
Highland,	North side Durfee.				1	
Howard ave.,	East side Acushnet ave.				1	
Market,	West side Pleasant.					1
Middle,	West side Water.			1		
North,	West side Water.		1			
North,	East side Beech.				1	
Orchard,	South side Hawthorn.				1	
Park,	North side Court.			1		
Pierce,	South side Kempton.				1	
Pleasant,	North side Union.				1	
Purchase,	South side Pearl (1893).	1				
River,	West side Acushnet ave.				1	
Rockland,	West side Orchard.			1		
Second,	North side Potomska.			1		
Shawmut ave.,	South side Robeson.			1		
South,	East side Acushnet ave.			1		
Stone,	South side Allen.					1
Turner's court,	East side Acushnet ave.					1
Wamsutta,	West side Front.			1		
Ward,	South side Allen.				1	
Washington,	West side County.			1		
Willow,	East side Shawmut ave.				1	
	Totals,	1	1	12	23	7

REMOVED.

Bonney street, north side Grinnell,	4-inch.
Bonney street, south side Grinnell,	4 "
Middle street, west side Water,	6 "
Middle street, east of Purchase,	6 "
North street, west side Water,	6 "
North street, east side Acushnet avenue,	4 "
Pleasant street, north side Union,	4 "
South street, west side Second,	6 "
Washington street, west side County,	6 "

The following gates were removed in 1893, but omitted in the report :—

Elm street, east side Pleasant,	4-inch.
Fifth street, south side Union,	4 "
Hillman street, west side Purchase,	8 "
North street, east side Purchase,	4 "
North street, west side Purchase,	4 "
Purchase street, at hydrant northwest corner Mechanics lane,	6 "
Water street, north side Union,	6 "
Water street, south side Union,	6 "
Number of stop gates set in 1894,	44
Number removed,	17
	—
	27
Number in use at date of last report,	808
	—
Number in use Dec. 1, 1894,	835

TABLE E.

SMALL-SIZED STOP GATES SET IN 1894.

STREETS.	LOCATION.	SIZE.	
		3 inch	2 inch
Berlin court, Cedar Grove,	West side Church. At watering cart hydrant east of Acushnet avenue.	1	1
Davis, Poplar road,	West side Church. At watering cart hydrant west of Bolton road.	1	1
Sawyer,	At watering cart hydrant east of Mitchell.		1
	Totals,	2	3

REMOVED.

Turner's court, east side Acushnet avenue,	1 inch.
Cedar Grove, at watering cart hydrant,	2 "
Number set in 1894,	5
Number removed in 1894,	2
	—
	3
Number in use at date of last report,	62
	—
Number in use Dec. 1, 1894,	65

TABLE F.

PRIVATE STOP GATES SET IN 1894.

STREETS.	LOCATION.	SIZE.		
		4 inch	3 inch	2 inch
Allen, Kempton, Pleasant, William,	At Joseph S. Sisson's.			1
	At St. Mary's Home.			1
	At Standard Building.	1		
	At Merchants Bank.		1	
	Total,	1	1	2

REMOVED.

Front street, at Wamsutta Mills private hydrant,	4 inch.
Front street, at N. B. Electric Lighting Co.,	2 "
William street, at Wood, Brightman & Co.,	2 "
Number set during 1894,	4
Number removed,	3
	—
	1
Number in use at date of last report,	171
	—
Number in use Dec. 1, 1894,	172

TABLE G.
WASTE GATES SET IN 1894.

STREETS.	LOCATION.	SIZE.
		4 inch
Middle, Washington,	West of Water.	1
	West of County.	1
	Totals,	2

Number set in 1894,	2
Number in use at date of last report,	74
	—
Number in use December 1, 1894,	76

TABLE H.

LOCATION OF HYDRANTS SET IN 1894.

Bonney street, northwest corner Grinnell.
Chancery street, southwest corner Maple.
Church street, southwest corner Hathaway avenue.
Church street, west side, 591.4 feet north of Coffin avenue.
Clark street, southwest corner State.
Dartmouth street, east side, 110.5 feet south of Orchard.
Davis street, south side, 321.8 feet east of Front.
Davis street, southwest corner Front.
Field street, northwest corner Stowell.
First street, northwest corner Potomska.
Front street, southwest corner Middle.
Front street, southeast corner Wamsutta.
Front street, west side, 235.2 feet north of Wamsutta.
Front street, west side, 192.2 feet south of Logan.
Front street, southwest corner Logan.
Gifford street, south side, 299 3 feet east of Harbor.
Gifford street, south side, 167.8 feet west of Harbor.
Harbor street, east side, 195.8 feet south of Gifford.
Hathaway avenue, south side, 233.4 feet east of Church.
Highland street, west side, 418.4 feet north of Durfee.
Holly street, southwest corner Bowditch.
Holly street, southeast corner Brook.
Hollyhock street, south side, 133 feet east of Field.
Howard avenue, south side, 364 feet east of Acushnet avenue.
Hunter street, west side, 167 feet north of North.
Maxfield street, south side, 44.4 feet east of Chancery.
Middle street, southwest corner Acushnet avenue.
Middle street, southwest corner Second.
Morton's court, west side, 385.3 feet north of Cove.
North street, southwest corner Acushnet avenue.
North street, southwest corner Beech.
Orchard street, southwest corner Grove.
Pleasant street, northwest corner Market.
Rockland street, south side, 179.3 feet east of Hemlock.
Shawmut avenue, southwest corner Robeson.
South street, southwest corner First.
South street, southwest corner Second.
South street, southwest corner Acushnet avenue.
Stone street, west side, 208.6 feet south of Allen.
Thompson street, southeast corner Bourne.

Washington street, southwest corner Crapo.

Washington street, southwest corner County.

(The entire list are post hydrants.)

REMOVED.

Bay street, south side, 48.9 feet east of Columbia.	Post.
Bonney street, northwest corner of Grinnell.	Flush.
Bourne street, west side, 144.2 feet north of Fruit.	Post.
Chancery street, west side, 167.4 feet south of Clinton.	"
Clark street, southwest corner State.	Flush.
Dartmouth street, east side, 110.5 feet south of Orchard.	"
Field street, west side, 351 feet south of Babbitt.	Post.
First street, west side, 255.2 feet south of South.	Flush.
Front street, southeast corner Wamsutta.	Post.
Logan street, southwest corner Front.	Flush.
Maxfield street, south side, 93.2 feet east of Chancery.	Post.
Middle street, southeast corner Second.	Flush.
Morton's court, west side, 258 feet north of Cove street.	Post.
North street, southeast corner Acushnet avenue.	Flush.
Pleasant street, southwest corner Market.	"
Shawmut avenue, west side, 32 feet north of Maitland.	Post.
Shawmut avenue, west side, 127 feet south of Durfee.	"
South street, southwest corner Second.	Flush.
South street, southwest corner Acushnet avenue.	"
Washington street, southeast corner Crapo.	"
Number set during 1894,	42
Number removed during 1894,	20
	—
Number to be added,	22
Number in use at date of last report,	585
	—
Number in use, Dec. 1, 1894,	607

TABLE I.

LOCATION OF WATERING CART HYDRANTS SET IN 1894.

Cedar Grove street, south side, 63 feet east of Acushnet avenue.

Poplar road, north side, 32 feet west of Bolton road.

Sawyer street, north side, 419.8 feet east of Mitchell.

REMOVED.

Cedar Grove street, south side, 18 feet west of Acushnet avenue.

Number set during 1894,	3
Number removed during 1894,	1
	—
Number to be added,	2
Number in use at date of last report,	40
	—
Number in use Dec. 1, 1894,	42

TABLE J.

STATEMENT OF WORK DONE BY THE SERVICE DEPARTMENT
FOR THE YEAR ENDING DEC. 1, 1894.

KIND AND SIZE.	NUMBER OF SERVICES.	LENGTH ON TAKER.	LENGTH ON CITY.
Lead pipe, $\frac{1}{2}$ -inch, heavy.	56	716	1269
Lead pipe, $\frac{3}{8}$ -inch, heavy.	58	787	1266
Lead pipe, $\frac{3}{8}$ -inch, light.	74	681.5	1617.5
Lead pipe, $\frac{1}{4}$ -inch, heavy.	4	109	32
Lead pipe, $\frac{1}{4}$ -inch, light.	57	639	1165
Lead pipe, 1-inch, heavy.	1	13.5	18
Lead pipe, 1-inch, light.	8	139.5	137
Iron pipe, 2-inch.	2	82.8	
Cast iron pipe, 4—3 inch.	2		
Totals.	262	3168.3	5504.5

One $\frac{1}{4}$ -inch iron service has been taken out and replaced with $\frac{3}{8}$ -inch heavy lead.

One $\frac{1}{4}$ -inch iron service has been taken out and replaced with $\frac{3}{8}$ -inch light lead.

One $\frac{1}{4}$ -inch iron service has been taken out and replaced with 1-inch light lead.

Two $\frac{1}{4}$ -inch light lead services have been taken out and replaced with 1-inch light lead.

One $\frac{3}{8}$ -inch iron service has been taken out and replaced with $\frac{1}{4}$ -inch light lead.

Four $\frac{3}{8}$ -inch iron services have been taken out and replaced with $\frac{3}{8}$ -inch heavy lead.

Three $\frac{3}{8}$ -inch light lead services have been taken out and replaced with $\frac{1}{4}$ -inch light lead.

One $\frac{3}{8}$ -inch heavy lead service has been taken out and replaced with $\frac{1}{4}$ -inch heavy lead.

Two $\frac{3}{8}$ -inch light lead services have been taken out and replaced with $\frac{3}{8}$ -inch light lead.

Two $\frac{3}{8}$ -inch iron services have been taken out and replaced with $\frac{3}{8}$ -inch light lead.

One $\frac{1}{2}$ -inch heavy lead service has been taken out and replaced with $\frac{3}{8}$ -inch heavy lead.

Three connections to services previously laid have been made by owners.

One 2-inch wrought iron, one $1\frac{1}{2}$ -inch light, one 1-inch heavy, one 1-inch light, two $\frac{3}{8}$ -inch heavy, fifteen $\frac{3}{8}$ -inch light, one $\frac{3}{4}$ -inch heavy, two $\frac{3}{4}$ -inch light, one $\frac{1}{2}$ -inch heavy, and one $\frac{1}{2}$ -inch light lead services have been discontinued.

Length of service pipe laid during the year, 8,672.8 feet, or $1\frac{6426}{10000}$ miles.

Total number of services in use Dec. 1, 1894, 7,767.

TABLE K.

METERS.

LOCATION.	PATTERN.	SIZE.
Acushnet Coöperative Association, 213 Acushnet avenue.	Union rotary.	1 inch.
Acushnet Mill No. 1.	Union rotary.	6 "
Acushnet Mill No. 2.	Union rotary.	4 "
Addy, Joshua, north side Pope, east of Chestnut street.	Crown.	1 "
Allen, John S., 102 State street.	Crown.	" "
Allen, Timothy C., 188 Grinnell street.	Crown.	" "
Allen, T. F. 185 Pleasant street.	Hersey.	" "
Bacon, Annie E., 4 Lincoln street.	Crown.	" "
Baker, Michael A., 82 Chestnut street.	Crown.	" "
Barlow, James, 38 Winsor street.	Hersey.	" "
Barrett, John R., 2 Richmond street.	Hersey.	" "
Bates, J. W., Kempton and Cottage street.	Crown.	" "
Bartlett, Harvey, 183 and 189 Purchase st.	Crown.	" "
Beetle, Rodolphus, 670 County street.	Crown.	" "
Bennett Mill.	Union rotary.	6 "
Bisbee, Anna R., 8 Wing street.	Crown.	1 "
Bisbee, Anna R., 186 Fourth street.	Crown.	" "
Blackler, Mrs. A. M., 111 Summer street.	Union rotary.	" "
Blackmer, A. L., 675 County street.	Hersey.	" "
Brunel, Oliver A., Rivet and Fourth sts.	Hersey.	" "
Bosworth, William, 435 Cottage street.	Hersey.	" "
Bourne, Standish, 47 North Second street.	Union rotary.	2 "
Boivin, Nazaire, 7 Hicks street.	Union rotary.	1 1/2 "
Brightman, George A., 35 Smith street.	Crown.	1 "
Brightman, Nathan P., 107 Elm street.	Crown.	" "
Briggs, Daniel D., 43 Bedford street.	Crown.	" "
Briggs, George E., Dartmouth street.	Union rotary.	1 1/2 "
Briggs, Stephen H., 351 County street.	Hersey.	" "
Bristol Manufacturing Co., Coggeshall st.	Hersey.	4 "
Brownell, Albion T., 46 Fifth street.	Crown.	" "
Brownell, Charles H., Florence street.	Crown.	" "
Buffington, Arthur E., 27 Crapo street.	Crown.	" "
Butler, William P., 797 South Water street.	Hersey.	" "
Caldwell, S. C., 365 Pleasant street.	Union rotary.	" "
Caldwell, S. C., 367 Pleasant street.	Crown.	" "
Central Union Association, 5 North Sixth street.	Thomson.	1 1/2 "
Central wharf.	Crown.	2 "
Cemetery, Rural, Dartmouth street.	Crown.	2 "
Cemetery, Oak Grove, Parker street.	Crown.	3 "
Chadwick, Edward E., William street.	Crown.	3 "
Chappell, William H., 21 Willis street.	Hersey.	" "
Childs, A. F., 6 Wing street.	Hersey.	" "
Childs, J. G. & Son, Rotch's wharf.	Hersey.	" "

METERS.—*Continued.*

LOCATION.	PATTERN.	SIZE.
Childs, J. G., 176 Fourth street.	Crown.	$\frac{1}{2}$ inch.
City Manufacturing Co., Grinnell street.	Union rotary.	6 "
Columbia Spinning Co., Coggeshall street.	Hersey.	6 "
Cook, Robert, 266 Fourth street.	Hersey.	$\frac{3}{8}$ "
Davis, Abner T., estate, 34 Fifth street.	Union rotary.	$\frac{3}{8}$ "
Dawson, Benjamin, Purchase and Hazard streets.	Crown.	$1\frac{1}{2}$ "
Dawson, Benjamin, Hazard street.	Hersey.	1 "
Davenport, Charles M., south side Arnold, west of Park street.	Crown.	$\frac{3}{4}$ "
Davis, Mary, west side County, north of Rivet street.	Hersey.	$\frac{3}{8}$ "
Deacon, William, north side Union, west west of Ash street.	Crown.	$\frac{3}{4}$ "
Dowden, James, 35 Mill street.	Union rotary.	$\frac{3}{4}$ "
Duff, David & Son, 12 Front street.	Crown.	1 "
Duff, David & Son, Fish Island.	Union rotary.	$1\frac{1}{2}$ "
Eldridge, Washington A., 56 Mill street.	Crown.	$\frac{3}{8}$ "
Elliot, John D., 106 Fourth street.	Hersey.	" "
Ennis, John W., 161 Grinnell street.	Hersey.	$\frac{3}{8}$ "
Fish, L. C., 59 Sycamore street.	Crown.	$\frac{3}{4}$ "
Folger, David B., 140 Union street.	Thomson.	1 "
Folsom, Simeon, Middle and Purchase sts.	Union rotary.	1 "
Ford, N. E., 67 Willis street.	Hersey.	$\frac{3}{8}$ "
Francis, Joseph F., French avenue and Social street.	Hersey.	$\frac{3}{8}$ "
Francis, Joseph F., County street.	Crown.	$\frac{3}{8}$ "
Garfield & Proctor Coal Co., foot Hillman street.	Hersey.	1 "
Gifford, T. J., Ashland and Austin streets.	Crown.	$\frac{3}{8}$ "
Gifford, T. J., 34 Hillman street.	Crown.	" "
Gifford, T. J., 32 Hillman street.	Crown.	$\frac{3}{8}$ "
Goddard, James R., west side Cottage, south of Durfee street.	Hersey.	$\frac{3}{8}$ "
Godfrey, Seth W., 429 Union street.	Crown.	$1\frac{1}{2}$ "
Grinnell Mill, Kilburn street.	Union rotary.	$\frac{1}{2}$ "
Hall, S. M., estate, 327 Pleasant street.	Crown.	" "
Hammond, Henry F., 79 Mill street.	Crown.	$\frac{3}{8}$ "
Haskell, Edward S., South Sixth street.	Hersey.	$\frac{3}{8}$ "
Haskell & Tripp, William street.	Union rotary.	2 "
Hathaway Manufacturing Co., Mill No. 1.	Union rotary.	$\frac{1}{2}$ "
Hathaway Manufacturing Co., Mill No. 2.	Gem.	$\frac{1}{2}$ "
Hathaway, Jas. C., Florence & Kempton streets.	Crown.	$\frac{3}{4}$ "
Hayes, N. P., William street.	Crown.	1 "
Hazzard's wharf.	Union rotary.	2 "
Holcomb, Henry, estate, 21 Madison street.	Crown.	$\frac{1}{2}$ "
Heap, W. H., 141 Chestnut street.	Hersey.	$\frac{3}{8}$ "

METERS.—*Continued.*

LOCATION.	PATTERN.	SIZE.
Holmes, David W., 81 Thomas street.	Hersey.	$\frac{3}{8}$ inch.
Howland, George, wharf.	Ball & Fitts.	2 "
Howland, Elizabeth, 62 Allen street.	Crown.	$\frac{1}{2}$ "
Howland, Dr. B. C., 31 Eighth street.	Crown.	" "
Howland, Paul, estate, 91 State street.	Union rotary.	$\frac{1}{4}$ "
Howland Mill No. 1.	Union rotary.	6 "
Howland Mill No. 2.	Union rotary.	6 "
Hurd, Antoino, 150 Acushnet avenue.	Hersey.	$\frac{3}{8}$ "
Hutchinson, H. S., 202 Union street.	Hersey.	" "
Jason, A. V., 111 South Seventh street.	Crown.	$\frac{1}{2}$ "
Jay, James A., Second street.	Hersey.	1 "
Jenney, Susan A., 69 Chestnut street.	Hersey.	$\frac{3}{4}$ "
Kane, D. J. & Bro., 134 Union street.	Crown.	" "
Keene, Charles F., Centre street.	Hersey.	2 "
Keene, Leonard, Jr., Parker and Chestnut streets.	Crown.	$\frac{3}{8}$ "
Kirby, Tillinghast, 350 Cottage street.	Crown.	" "
Knowles, John P., Jr., 485 County street.	Crown.	" "
Knowles, John P., Jr., 108 Willis street.	Hersey.	$\frac{1}{4}$ "
Lawrence, Edward I., west side Emerson street.	Hersey.	$\frac{3}{8}$ "
Lawrence, Thomas W., 117 Willis street.	Hersey.	" "
Lawrence, John H., 66 Parker street.	Hersey.	" "
Lawton, James M., Jr., 80 State street.	Crown.	$\frac{3}{8}$ "
Lewis, E. R., 321 Union street.	Crown.	1 "
Lima, J. M., 100 South Sixth street.	Hersey.	$\frac{1}{2}$ "
Longfield, Joseph S., 52 Shawmut avenue.	Crown.	" "
Lowe, John H., 931 Acushnet avenue.	Crown.	" "
Lowe, Stephen C., 39 Sycamore street.	Hersey.	" "
Lowell, Clarence, 40 Fifth street.	Crown.	" "
Lythgoe, David, estate, 322 Pleasant st.	Hersey.	" "
Macaulay, Walter S., 132 Division street.	Crown.	" "
Macomber, William B., 74 State street.	Hersey.	" "
Macy, J. Roland, 186 Union street.	Crown.	1 "
Macy, Roland, 1 Greene street.	Crown.	$\frac{1}{2}$ "
Maine, H. M., 36 North street.	Crown.	$\frac{3}{4}$ "
Masonic Building, Union and Pleasant sts.	Hersey.	$1\frac{1}{2}$ "
Marquand, James, 35 Maxfield street.	Crown.	$\frac{1}{2}$ "
Meaney, Thomas J., 953 and 957 South Water street.	Crown.	$\frac{1}{2}$ "
Meaney, Thomas J., Division, west of Water street.	Crown.	$\frac{1}{2}$ "
Merchants Bank, Purchase and William streets.	Hersey.	2 "
Merrill's wharf.	Union rotary.	2 "
Mills, William J., south side Austin street.	Hersey.	$\frac{3}{8}$ "
Mills, William J., south side Austin street.	Hersey.	" "
Monte Pio Coöperative Association, Acushnet avenue and Howland street.	Thomson.	1 "

METERS.—*Continued.*

LOCATION.	PATTERN.	SIZE.
Mosher, C. E. E. and H. C. W., 92 High st.	Crown.	$\frac{3}{4}$ inch.
Moynan & Co., Union street.	Union rotary.	3 "
Mt. Washington Glass Works, Prospect st.	Union rotary.	2 "
Murkland, James H., 35 Fifth street.	Hersey.	$\frac{5}{16}$ "
Murkland, James H., 55 Walnut street.	Hersey.	$\frac{5}{16}$ "
Nash, Thos. N., Acushnet avenue and Nash road.	Crown.	$\frac{1}{2}$ "
New Bedford and Martha's Vineyard Steamboat Co.'s wharf.	Crown.	3 "
New Bedford Five-cent Savings Bank, Purchase street.	Hersey.	1 "
New Bedford Gas Light Co., Coffin street.	Union rotary.	3 "
New Bedford Gas Light Co., South Water street.	Hersey.	1 "
New Bedford Gas Light Co., South Water street.	Hersey.	2 "
New Bedford Manufacturing Co.	Union rotary.	6 "
New Bedford Manufacturing Co., North street.	Union rotary.	6 "
New Bedford Paper Co., Hastings' wharf.	Hersey.	2 "
New Bedford Yacht Club, Pope's Island.	Ball & Fitts.	1 "
Nichols, Leander P., 49 North street.	Union rotary.	$\frac{3}{4}$ "
Nye, William F., Fish Island.	Crown.	$1\frac{1}{2}$ "
N. Y., N. H. & H. R. R. Co., Logan street.	Crown.	3 "
N. Y., N. H. & H. R. R. Co., foot of Pearl street.	Crown.	$1\frac{1}{2}$ "
O'Brien, Michael, 97 Grinnell street.	Crown.	$\frac{1}{2}$ "
Old Colony Steamboat Co., Commercial wharf.	Union rotary.	3 "
Onoko Mills. Purchase street.	Union rotary.	6 "
Pairpoint Manufacturing Co., Prospect st.	Union rotary.	3 "
Parker, Geo. H., Parker and Chestnut sts.	Thomson.	$\frac{3}{4}$ "
Pease, Francis M., 218 Fourth street.	Hersey.	$\frac{5}{16}$ "
Pease, F. R., 923 Acushnet avenue.	Hersey.	$\frac{5}{16}$ "
Pease, F. R., 923 Acushnet avenue.	Thomson.	1 "
Perry, E. S., Maxfield and Summer streets.	Crown.	$\frac{3}{4}$ "
Perry, J. W., 62 Thomas street.	Crown.	$\frac{3}{4}$ "
Perry, Henry C., 671 County street.	Crown.	$\frac{3}{4}$ "
Perry, Henry C., 562 County street.	Crown.	$\frac{3}{4}$ "
Perry, S. T., estate, 77 North street.	Crown.	$\frac{1}{2}$ "
Pelan, Thomas, 278 Kempton street.	Crown.	$\frac{3}{4}$ "
P. & R. Coal and Iron Co.'s wharf.	Crown.	3 "
Pickens, George, 149 Summer street.	Union rotary.	$\frac{3}{4}$ "
Pierce, Frank E., 87 Mill street.	Crown.	$\frac{3}{4}$ "
Pierce Mill, Belleville avenue.	Hersey.	4 "
Pitman, Lucy J., east side Atlantic, south of Union street.	Crown.	$\frac{1}{2}$ "
Pope's Island Manufacturing Co., Pope's Island.	Crown.	1 "

METERS.—*Continued.*

LOCATION.	PATTERN.	SIZE.
Potter, Wm. F. & Co., Front street.	Crown.	1 "
Potomska Mills, Potomska street.	Union rotary.	6 "
Potomska Mills gas house, Potomska st.	Hersey.	1 "
Price, Alexander, 110 County street.	Crown.	5 5 3 3 4 "
Quimby, Ezra, 135 Summer street.	Crown.	5 5 3 3 4 "
Refuse, R. T., Richmond and Maitland streets.	Crown.	3 4 1 2 "
Robeson Building, William street.	Crown.	3 4 1 2 "
Rotch Spinning Corporation, Bolton road, Mill No. 1.	Hersey.	6 "
Rotch Spinning Corporation, Bolton road, Mill No. 2.	Union rotary.	6 "
Rotch's wharf.	Union rotary.	2 "
Russell, Charles G., 343 Purchase street.	Crown.	5 5 5 5 8 "
Sawtelle, Frank C., 315 Pleasant street.	Hersey.	5 5 5 5 8 "
Shaw, Dr. J. C., 23 South Sixth street.	Crown.	1 "
Sherman, I. C. & Son, 76 Union street.	Union rotary.	2 "
Sherman, James L., 43 Mill street.	Crown.	3 4 1 2 5 8 "
Silveria, Frank A., 169 County street.	Hersey.	3 4 1 2 5 8 "
Sisson, Joseph S., Allen and County sts.	Thomson.	1 "
Slocum, Mrs. S. A., 187 Pleasant street.	Hersey.	5 5 5 5 8 "
Smalley, Orrick, Jr., 69 South Sixth street.	Crown.	5 5 5 5 8 "
Smith, Ellen M., 73 Bedford street.	Crown.	5 5 5 5 8 "
Smith Bros., Purchase and Linden streets.	Crown.	3 4 1 2 5 8 "
Smith, Esther L., 120 Maxfield street.	Hersey.	3 4 1 2 5 8 "
Snedden, George, 213 Weld street.	Crown.	3 4 1 2 5 8 "
Spare, J. V., Purchase street.	Hersey.	1 "
Spencer, Hartley, 18 Parker street.	Crown.	5 5 5 5 8 "
Spencer, Hartley, 14 Parker street.	Crown.	1 2 3 4 "
Spencer, John, 85 Austin street.	Crown.	1 2 3 4 "
Stafford, Geo. B., Shawmut avenue and Parker street.	Crown.	3 4 1 2 5 8 "
Stanton, A. G., 198 Grinnell street.	Crown.	3 4 1 2 5 8 "
Sturtevant, Benjamin S., 35 Bay street.	Hersey.	5 5 5 5 8 "
Swan, Carrie B., 110 Fourth street.	Hersey.	5 5 5 5 8 "
Taber's wharf.	Crown.	2 "
Thompson, George W., 88 Willis street.	Crown.	1 3 4 5 8 "
Thornton, John R., 20 Seventh street.	Hersey.	1 3 4 5 8 "
Thornton, Alfred, 256 Union street.	Crown.	1 3 4 5 8 "
Tillinghast, Theodore F., Hicks street.	Crown.	5 5 5 5 8 "
Tripp, Geo. H. W., 45 Bedford street.	Crown.	5 5 5 5 8 "
Tripp, Franklin C., 407 Cedar street.	Hersey.	5 5 5 5 8 "
Union Street Railway Co., Parker's wharf.	Crown.	3 "
U. S. Postoffice, Acushnet avenue and William street.	Hersey.	1 "
Vaughan, W. C., Jr., 323 Purchase street.	Crown.	5 5 8 "
Walker, William, County and Campbell streets.	Crown.	3 4 1 2 5 8 "
Wamsutta Mills, Nos. 1, 2 and 3.	Union rotary.	6 "

METERS.—*Continued.*

LOCATION.	PATTERN.	SIZE.
Wamsutta Mills, Nos. 4 and 5.	Union rotary,	8 inch,
Wamsutta Mill No. 6.	Union rotary.	6 "
Wamsutta Mills gas house.	Hersey.	1 "
Washburn, A. R., 338 Cedar street.	Crown.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 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1821 1822 1823 1824 1825 1826 1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 21

TABLE L.

MOTORS.

LOCATION.	USED FOR	SIZE OF SUPPLY PIPE.
Acushnet Coöperative Association, 213 Acushnet avenue.	Grinding coffee.	1 inch.
Acushnet club, 906 South Water street.	Beer pump.	$\frac{1}{2}$ "
Baptist church, William street.	Blowing organ.	$2\frac{1}{2}$ "
Bartley, Martin, 47 Middle street.	Beer pump.	$\frac{1}{2}$ "
Boardman, George, 54 Weld street.	Beer pump.	$\frac{1}{2}$ "
Boivin, Nazaire, 7 Hicks street.	Circular saw.	2 "
Boswell, John, 349-353 Acushnet avenue.	Beer pump.	$\frac{1}{2}$ "
Bourne, Standish, 47 North Second street.	Elevator.	2 "
Briggs, George E., Dartmouth street.	Lathe.	2 "
Brownell, Albion T., Parker house.	Beer pump.	$\frac{1}{2}$ "
Burt, H. P., 355 Union street.	Cellar drainer.	$\frac{3}{4}$ "
Carr, F. B., 105 Union street.	Beer pump.	$\frac{1}{2}$ "
Central Union store, 5 North Sixth street.	Grinding coffee.	14 "
Chadwick, Edward E., William street.	Sausage cut'ng.	14 "
Corey, William T., 912 Acushnet avenue.	Beer pump.	$\frac{1}{2}$ "
Cummings, C. S. & B., 102 William street.	Grinding coffee.	2 "
Corrigan, John, 629-633 South First street.	Beer pump.	$\frac{1}{2}$ "
Dawson, Benj., Purchase and Hazard sts.	Elevator.	$1\frac{1}{2}$ "
Driscoll, Church & Hall, Union and First	Elevator.	3 "
Enos, Manuel, 433 and 439 So. Water st.	Beer pump.	$\frac{1}{2}$ "
Finnell & Snow, 23 South Second street.	Beer pump.	$\frac{1}{2}$ "
Folger, David B., 140 Union street.	Grinding coffee.	1 "
Francis, Anthony S., 165 South Water st.	Beer pump.	$\frac{1}{2}$ "
Gillespie, Robert, 212 Coggeshall street.	Beer pump.	$\frac{1}{2}$ "
Grace church, School and County streets.	Blowing organ.	2 "
Greene, Daniel T., 3 Weld street.	Beer pump.	$\frac{1}{2}$ "
Haskell & Tripp, William street.	Elevator.	3 "
Hindle, Joseph, 698 Purchase street.	Beer pump.	$\frac{1}{2}$ "
Jay, James A., 13 South Second street.	Clip'g machine.	1 "
Kane, D. J. & Bro., Union street.	Book bindery.	2 "
Kane, M. F., Hall's court.	Beer pump.	$\frac{1}{2}$ "
Keen, Charles F., Centre street.	Wood working machinery.	2 "
Macy, J. Roland, 186 Union street.	Grinding coffee.	1 "
Matthews, James, 318 Acushnet avenue.	Beer pump.	$\frac{1}{2}$ "
McCarthy, James E., 855 Purchase street.	Beer pump.	$\frac{1}{2}$ "
Mills, Adam, 599 South Water street.	Beer pump.	$\frac{1}{2}$ "
Mitchell & Carroll, 205 and 209 So. Water street.	Beer pump.	$\frac{1}{2}$ "
Monte Pio Coöperative Association, Acush- net avenue and Howland street.	Grinding coffee.	2 "
Moynan & Co., Union street.	Elevator.	3 "
Murray, A. J., 124 Union street.	Beer pump.	$\frac{1}{2}$ "
Nesbett, F. B., 160 Purchase street.	Dentist.	$\frac{5}{8}$ "
N. B. Gas Light Co., South Water street.	Elevator.	2 "

MOTORS.—*Continued.*

LOCATION.	USED FOR	SIZE OF SUPPLY PIPE.
North Congregational church, Purchase and Elm street.	Blowing organ.	3 inch.
O'Brien, P. H., Purchase and Pearl streets.	Beer pump.	$\frac{1}{2}$ "
O'Leary, Patrick, 870 and 876 Acushnet avenue.	Beer pump.	$\frac{1}{2}$ "
Pease, F. R., 923 Acushnet avenue.	Fan.	$\frac{3}{4}$ "
Phelan, Michael, 685 South First street.	Beer pump.	$\frac{1}{2}$ "
Potter, Wm. F. & Co., Front and Union sts.	Grinding coffee.	1 "
Rock, James, 745 South Water street.	Beer pump.	$\frac{1}{2}$ "
Sherman, I. C. & Son, 76 Union street.	Elevator.	3 "
Sherman, E. B., 60 Purchase street.	Beer pump.	$\frac{1}{2}$ "
Sisson, James E., 74 and 78 So. Water st.	Beer pump.	$\frac{1}{2}$ "
Smith Bros., 777 and 783 Purchase street.	Beer pump.	$\frac{1}{2}$ "
Smith, Bernard P., 7 and 9 Delano street.	Beer pump.	$\frac{1}{2}$ "
Stevens, L. D., 35 and 39 Elm street.	Beer pump.	$\frac{1}{2}$ "
St. John Baptist church, Fifth street.	Blowing organ.	2 "
St. Lawrence church, County and Hillman streets.	Blowing organ.	3 "
Sisson, Joseph S., Allen & County streets.	Grinding coffee.	2 "
Spare, J. V., Purchase street.	Elevator.	1 "
Sylvia, M. L. & Co., 784 South Water st.	Beer pump.	$\frac{1}{2}$ "
Trinitarian church, Fourth and School sts.	Blowing organ.	3 "
Trinitarian church, Fourth and School sts.	Cellar drainer.	$\frac{3}{4}$ "
Unitarian church, Union and Eighth sts.	Blowing organ.	3 "
U. S. custom house, Second and William streets.	Cellar drainer.	$\frac{3}{4}$ "
Vernon, John, 634 South First street.	Beer pump.	$\frac{1}{2}$ "
Watson, Mark, 874 Purchase street.	Beer pump.	$\frac{1}{2}$ "
Whittaker, William, 49 Hicks street.	Beer pump.	$\frac{1}{2}$ "
Winterson, P. H., 701 South Water street.	Beer pump.	$\frac{1}{2}$ "

Total number of motors in use Dec. 1, 1894 68

TABLE M.

WATERING CART HYDRANTS.

Acushnet avenue, west side, 4.5 feet north from north line South Belleville road.
Acushnet avenue, west side, 13.5 feet north from north line North Belleville road.
Acushnet avenue, west side, 11.9 feet south from south line Tarkiln Hill road.
Allen street, north side, 154 feet east of Page.
Bedford street, south side, 86 feet west of Fourth.
Campbell street, south side, 87 feet west of Purchase.
Cedar Grove street, south side, 63 feet east of Acushnet avenue.
Coffin avenue, south side, 16.5 feet west of Acushnet avenue.
Commercial street, south side, 20.2 east of Water.
County street, west side, 32.2 feet north of Allen.
Court street, north side, 15 feet east of Ash.
Dartmouth street, east side, 13 feet south of Oak.
Elm street, south side, 57.4 feet west of Purchase.
First street, west side, 118 feet south of School.
First street, west side, 28 feet south of Grinnell.
Grinnell street, south side, 31 feet east of County.
Hawthorn street, south side, 17 feet east of Cottage.
Hawthorn street, head of Tremont.
Hazard street, south side, 21 feet west of Purchase.
Kempton street, south side, 72 feet west of County.
Kempton street, south side, 102 feet east of Newton.
Kempton street, south side, 16 feet east of Rockdale avenue.
Linden street, south side, 30 feet west of Purchase.
Locust street, south side, 25 feet west of County.
Madison street, south side, 17 feet east of Fourth.
Madison street, south side, 39 feet west of County.
Mill street, south side, 9 feet west of Purchase.
Middle Point road, south side, 58 feet east of French avenue.
Mt. Vernon street, south side, 14 feet west of Mt. Pleasant.
Poplar road, north side, 32 feet west of Bolton road.
Reynolds street, west side, 8 feet north of Linden.
Robeson street, south side, 38 feet west of Cedar.
Sawyer street, north side, 419.8 feet east of Mitchell.
Smith street, south side, 53 feet east of Park.

Spring street, south side, 49 feet west of Sixth.

Summer street, west side. 4 feet north of Hillman.

Sycamore street, south side, 77 feet west of County.

Thompson street, south side, 72 feet west of Warwick.

Union street, south side, 65 feet west of County.

Water street, west side, 6 feet south of Blackmer.

William street, south side, 27 feet east of Second.

Willis street, south side, 7.5 feet east of Acushnet avenue.

Number now in use, 42.

TABLE N.

LOCATION OF HYDRANTS.

	Pressure in lbs.
Acushnet avenue, west side, 542 feet north of Tarkiln Hill road.	
Post.	54
Acushnet avenue, southwest corner Tarkiln Hill road. Post . . .	55
Acushnet avenue, west side, south of Tarkiln Hill road 500 feet.	
Post.	54
Acushnet avenue, west side, south of Tarkiln Hill road 997 feet.	
Post	53
Acushnet avenue, west side, north of North Belleville road 600	
feet. Post.	53
Acushnet avenue, west side, north of North Belleville road 6 feet.	
Post.	54
Acushnet avenue, west side, south of North Belleville road 601	
feet. Post.	55
Acushnet avenue, west side, north of Shaw 610 feet. Post	51
Acushnet avenue, northwest corner of Shaw. Post.	47
Acushnet avenue, west side, north of South Belleville road 603½	
feet. Post.	45
Acushnet avenue, west side, head of South Belleville road. Post.	42
Acushnet avenue, northwest corner of Nash road. Post.	40
Acushnet avenue, northwest corner of Hathaway avenue. Post. .	40
Acushnet avenue, northwest corner of Davis. Post.	41
Acushnet avenue, southwest corner of Phillips avenue. Post. . .	39
Acushnet avenue, southwest corner of Dean. Post.	48
Acushnet avenue, west side, north of Sawyer 574½ feet. Post. . .	53
Acushnet avenue, southwest corner of Coggeshall. Post.	56
Acushnet avenue, southwest corner of Cedar Grove. Post. . . .	54
Acushnet avenue, west side, south of Logan 335 feet. Post. . . .	60
Acushnet avenue, west side, north of Wamsutta 514 feet. Double.	62
Acushnet avenue, west side, north of Wamsutta 372 feet. Post. .	60
Acushnet avenue, west side, south of Wamsutta 255 feet.	63
Acushnet avenue, west side, at end of Wall street. Post.	62
Acushnet avenue, southeast corner of Pope.	64

	Pressure in lbs.
Acushnet avenue, northwest corner of Willis.	61
Acushnet avenue, west side, south of Campbell 179 feet.	59
Acushnet avenue, northwest corner of Maxfield.	57
Acushnet avenue, northwest corner of Kempton.	47
Acushnet avenue, northeast corner of Elm.	47
Acushnet avenue, northwest corner of School. Post.	51
Acushnet avenue, northwest corner of Madison. Post.	57
Acushnet avenue, northwest corner of Russell. Post.	58
Acushnet avenue, northwest corner of Bedford. Post.	60
Acushnet avenue, west side, opposite Howland.	61
Acushnet avenue, northwest corner of Potomska. Post.	50
Acushnet avenue, west side, north of Rivet 98 feet. Post.	59
Acushnet avenue, southwest corner of Blackmer.	60
Allen street, southeast corner of Bonney.	46
Allen street, northwest corner of Ward.	41
Allen street, north side, east of Page 159 feet.	38
Allen street, southwest corner of Page. Post.	36
Arch street, southwest corner of Union.	24
Armour street, southwest corner of Union. Post.	24
Arnold street, south side, west of Orchard 96 feet. Post.	22
Arnold street, southwest corner of Chancery.	33
Arnold street, southeast corner of Atlantic.	32
Arnold street, south side, 15.3 feet west of James. Post.	24
Ash street, northwest corner of Middle. Post.	27
Ash street, southwest corner of Morgan. Double.	25
Ash street, northwest corner of Arnold.	32
Ash street, northwest corner of Maple.	34
Ash street, northwest corner of Bedford. Post.	37
Ashland street, west side, head of Linden.	11
Ashland street, southwest corner of Clark. Post.	12
Atlantic street, west side, 186 feet south of Arnold. Post.	29
Atlantic street, southwest corner of Union. Post.	31
Austin street, southeast corner of State. Post.	42
Austin street, southwest corner of Purchase. Post.	56
Austin street, southeast corner of Cedar. Post.	19
Austin street, south side, on west line of Wilson. Post.	20

Pressure
in lbs.

Austin street, southwest corner of Ashland. Post.	15
Austin street, southeast corner of Shawmut avenue. Post. . . .	14
Babbitt street, south side, 207.5 feet west of Dartmouth. Post. .	42
Babbitt street, southeast corner of Field. Post.	37
Bedford street, southwest corner of Fifth. Post.	55
Bedford street, southeast corner of County.	47
Bedford street, southeast corner of Orchard.	37
Beech street, northwest corner of Kempton. Post.	18
Beetle street, southwest corner of Howard. Post.	55
Beetle street, southeast corner of Front. Post.	57
Belleville avenue, west side, 118 feet north of Washburn. Post. .	63
Belleville avenue, northwest corner of Cedar Grove. Post. . . .	62
Belleville avenue, southwest corner of Washburn. Post.	61
Belleville avenue, west side, 134 feet north of Coggeshall. Post. .	62
Belleville avenue, northwest corner of Beetle. Post.	60
Belleville avenue, southwest corner of Coffin avenue. Post. . . .	59
Belleville avenue, west side, 141 feet north of Phillips avenue. Post.	59
Blackmer street, south side, east of Front 575 feet. Post.	63
Bolton road, west side, 246 feet north of Rivet. Post.	50
Bolton road, west side, north of Rotch Mill No. 2. Post.	49
Bolton road, west side, south of Rotch Mill No. 2. Post.	49
Bolton road, west side, south of Rivet 1,027 feet. Post.	59
Bolton road, northwest corner Poplar road. Post.	59
Bonney street, northwest corner of Grinnell. Post.	48
Bonney street, northwest corner of Rockland. Post.	54
Bonney street, west side, 259 feet north of Rivet. Post.	61
Borden street, southwest corner of Bay. Post.	42
Bowditch street, southwest corner of Weld. Post.	56
Bowditch street, west side, 313 feet south of Cedar Grove. Post. .	55
Bowditch street, west side, north of Cedar Grove 244 feet. Post. .	55
Bowditch street, west side, 406 feet south of Sawyer. Post. . . .	52
Bridge avenue, north side, 44 feet west of draw.	62
Bridge avenue, south side, 11 feet west of draw.	62
Brownell street, west side, 294 feet south of Union. Post.	22
Bullock street, southwest corner of Trinity. Post.	14

Pressure
in lbs.

Campbell street, south side, east of County 163 feet.	28
Campbell street, south side, 216.5 feet west of County. Post.	25
Campbell street, southwest corner of Cottage. Post.	19
Campbell street, south side, east of Emerson 205 feet.	18
Campbell street, southwest corner of Purchase. Post.	49
Cannon street, south side, east of Second 164 feet. Post.	63
Cedar street, northwest corner of Elm. Double.	25
Cedar street, southwest corner of Kempton.	26
Cedar street, west side, north of Mill 75 feet.	23
Cedar street, southwest corner of Hillman.	23
Cedar street, northwest corner of Sycamore	21
Cedar street, southwest corner of Campbell.	18
Cedar street, southwest corner of Parker.	19
Cedar Grove street, southeast corner of Front. Post.	60
Cedar Grove street, southeast corner of Howard. Post.	58
Cedar Grove street, south side, 383 feet west of Bowditch. Post.	57
Cedar Grove street, northwest corner of Purchase. Post.	56
Cedar Grove street, southwest corner of County. Post.	43
Cedar Grove street, south side, 183.5 feet west of County. Post.	40
Centre street, south side, east of Water 85 feet.	56
Chancery street, southwest corner Maple. Post.	34
Chancery street, west side, north of Arnold 406 feet. Post.	33
Chancery street, southwest corner of Elm. Post.	28
Chancery street, west side, south of Parker 176 feet. Post.	24
Chancery street, west side, 263 feet north of Parker. Post.	16
Cherry street, southeast corner of Seventh.	38
Chestnut street, southwest corner of North.	19
Chestnut street, west side, north of Campbell 96 feet.	22
Church street, southwest corner Hathaway avenue. Post.	33
Church street, west side, 591.4 feet north of Coffin avenue. Post.	36
Clark street, southwest corner of State. Post.	46
Clark street, south side, 170 feet west of County. Post.	40
Clay street, northwest corner of Columbia. Post.	44
Clinton street, south side, east of Orchard 125 feet.	26
Clinton street, south side, west of Ash 242.5 feet. Post.	44
Coffin avenue, southwest corner of North Purchase. Post.	40

	Pressure in lbs.
Coffin avenue, south side, opposite Onoko lane. Post.	40
Coffin avenue, southeast corner of Bowditch. Post.	40
Coffin avenue, southeast corner of Front. Post.	50
Coffin avenue, south side, 1,337 feet east of Belleville avenue. Post.	63
Coffin street, north side, 262 feet east of Water. Post.	62
Coggeshall street, south side, 654 feet east of Mitchell. Post. . .	63
Coggeshall street, south side, 498 feet east of Mitchell. Post. . .	62
Coggeshall street, south side, 334 feet east of Mitchell. Post. . .	62
Coggeshall street, north side, 148 feet east of Mitchell. Post. . .	62
Coggeshall street, southeast corner of Belleville avenue. Post. .	62
Coggeshall street, southwest corner of Front. Post.	61
Coggeshall street, southwest corner of Purchase. Post.	53
Coggeshall street, southeast corner of County. Post.	43
Coggeshall street, south side, 384 feet west of County. Post. . .	36
Collins street, southeast corner of Glover. Post.	15
Columbia street, southwest corner of Allen. Post.	40
Commercial street, north side, east of Front 82 feet. Post. . . .	62
Cottage road, south side, 435 feet west of Bolton road. Post. . .	55
Cottage street, southwest corner of Bay. Post.	43
Cottage street, northwest corner of Allen.	42
Cottage street, northwest corner of Bedford.	37
Cottage street, northwest corner of Hawthorn.	31
Cottage street, southwest corner of Arnold.	23
Cottage street, southwest corner of Union.	22
Cottage street, southwest corner of Kempton. Post.	22
Cottage street, northwest corner of Hillman. Post.	20
Cottage street, northwest corner of Sycamore. Post.	20
Cottage street, northwest corner of Parker. Post.	23
Cottage street, west side, 237 feet north of Locust. Post.	20
Cottage street, west side, 92 feet south of Austin. Post.	17
County street, west side, 200 feet north of Coggeshall. Post. . .	44
County street, southeast corner of Penniman. Post.	44
County street, west side, 234½ feet south of Clark. Post.	43
County street, west side, 115 feet south of Weld. Post.	42
County street, southwest corner of Austin. Post.	33
County street, northwest corner of Locust. Post.	24

	Pressure in lbs.
County street, northwest corner of Parker.	23
County street, southwest corner of Smith. Post.	30
County street, southwest corner of Maxfield.	25
County street, southwest corner of North.	21
County street, southwest corner of Middle. Double.	22
County street, southwest corner of Morgan. Post.	22
County street, northwest corner of Union.	24
County street, west side, head of School.	27
County street, northwest corner of Madison.	32
County street, southwest corner of Hawthorn.	36
County street, northwest corner of Allen.	49
County street, southwest corner of Grinnell. Post.	61
County street, northwest corner of South. Post.	62
County street, northwest corner of Winsor. Post.	57
County street, west side, 71 feet north of Division. Post.	54
County street, northwest corner of Cove road. Post.	62
Court street, southwest corner of Orchard.	22
Court street, south side opposite Cedar.	23
Court street, northeast corner of Ash. Post.	20
Court street, south side, opposite Emerson.	26
Court street, south side, west from Park 304 feet.	32
Court street, south side, head of Jenney. Post.	23
Court street, south side, east of Reed 300 feet. Post.	22
Cove road, southwest corner of Shore street. Post.	61
Cove road, south side, 365 feet west of County. Post.	61
Cove street, southwest corner of Cleveland avenue. Post.	61
Cove street, southwest corner of Harrison avenue. Post.	61
Cove street, southwest corner of Salisbury. Post.	59
Cove street, southwest corner of Viall. Post.	59
Cove street, southwest corner of McGurk. Post.	59
Cove street, south side, west of Water 334½ feet. Post.	60
Cove street, southeast corner of County. Post.	72
Crapo street, west side, south of Washington 343 feet.	60
Crapo street, west side, south of Rockland 225 feet.	63
Crapo street, west side, 160 feet south of Thompson. Post.	58
Dartmouth street, east side, southwest of Orchard 110 feet. Post.	46

Pressure
in lbs.

Dartmouth street, east side, 125 feet south of Hickory. Post. . . .	47
Dartmouth street, east side, 260 feet south of Rockland. Post. . . .	45
Dartmouth street, east side, 99 feet south of Thompson. Post. . . .	44
Dartmouth street, southeast corner of Larch. Post.	42
Dartmouth street, east side, 28 feet north of Dunbar. Post. . . .	43
Davis street, south side, 321.8 feet east of Front. Post.	50
Davis street, southwest corner of Front. Post.	46
Dean street, southwest corner of Belleville avenue. Post.	62
Dean street, southeast corner of Front. Post.	50
Delano street, southwest corner of Water. Post.	57
Delano street, southeast corner of Acushnet avenue. Post. . . .	57
Division street, southeast corner of Second. Post.	61
Division street, south side, 527 feet west of County. Post.	62
Division street, south side, east of Crapo 6 feet. Post.	58
Durfee street, southwest corner of Cedar. Post.	15
Durfee street, southwest corner of Bullock. Post.	17
Durfee street, southwest corner of Shawmut avenue. Post. . . .	12
East French avenue, northwest corner of Columbia avenue. Post.	61
Elm street, southwest corner of Purchase. Post.	43
Elm street, southwest corner of Pleasant.	38
Elm street, southwest corner of Summer.	18
Elm street, south side, 43.5 feet west of Florence. Post.	26
Elm street, southeast corner of Palmer. Post.	14
Emerson street, west side, 173.8 feet north of Arnold. Post. . . .	29
Field street, northwest corner of Stowell. Post.	37
Fifth street, southwest corner of Union. Post.	41
Fifth street, southwest corner of School. Post.	45
Fifth street, west side, south of Madison 245 feet.	50
Fifth street, northwest corner of Wing. Post.	59
Fifth street, northwest corner of Grinnell.	61
First street, southwest corner of Spring.	58
First street, west side, south of School 109 feet.	57
First street, west side, south of Howland 185 feet.	65
First street, northwest corner of Potomska. Post.	59
Florence street, west side, north of North 180 feet. Post. . . .	26
Florence street, northwest corner of Mill. Post.	24

Pressure
in lbs.

Florence street, west side, 199.6 feet south of Kempton. Post.	27
Florence street, southwest corner of Morgan. Post.	29
Forest street, south side, west of County 90 feet.	53
Foster street, southwest corner of Maxfield.	37
Foster street, northwest corner of High.	33
Fourth street, southwest corner of Union.	46
Fourth street, west side, north of School 106 feet.	46
Fourth street, west side, south of Madison 210 feet.	54
Fourth street, east side, opposite Washington. Post.	57
Fourth street, northwest corner of Rockland.	62
Fourth street, west side, south of Potomska 61 feet. Post.	58
Franklin street, southwest corner of Pleasant.	43
Franklin street, southwest corner of State Post.	38
French avenue, west side, south of Cove road 14 feet.	60
Front street, southwest corner of Holly. Post.	56
Front street, west side, south of Washburn 319 feet.	62
Front street, southwest corner of Logan. Post.	60
Front street, west side, 190.2 feet south of Logan. Post.	62
Front street, west side, south of Logan 383 feet. Post.	63
Front street, west side, 235.2 feet north of Wamsutta. Post.	63
Front street, southeast corner of Wamsutta. Post.	63
Front street, southwest corner of Middle. Post.	62
Front street, southwest corner of Hazard's lane.	61
Front street, northwest corner of Rodman. Post.	61
Front street, southwest corner of Centre.	61
Front street, west side, south of Commercial 86 feet.	63
Front street, northwest corner of lane head of Merrill's wharf	65
Front street, west side, south of Howland 268 feet. Post.	61
Front street, southwest corner of Grinnell. Post.	62
Front street, west side, south of South 330 feet. Post.	62
Front street, west side, 191 feet north of Blackmer. Post.	59
Front street, west side, north of Delano 191 feet. Post.	62
Fruit street, south side, east of Hemlock 126.5 feet. Post.	53
Fruit street, south side, 25.5 feet west of Mulberry. Post.	46
Gifford street, south side, 274 feet east of Water. Post.	65
Gifford street, south side, 167.8 feet west of Harbor. Post.	60

	Pressure in lbs.
Gifford street, south side, 299.3 feet east of Harbor. Post.	62
Grand street, south side, 750 feet west of Shawmut avenue. Post.	14
Granfield street, west side, 263 feet north of Coggeshall. Post.	59
Grape street, south side, west of Lewis 131 feet. Post.	36
Grape street, southwest corner of Small. Post.	35
Grape street, southwest corner of Devoll. Post.	29
Griffin street, southwest corner of Second.	62
Grinnell street, south side, west of Acushnet avenue 76 feet	60
Grinnell street, south side, east of Crapo 103 feet.	58
Grinnell street, southwest corner of Orchard. Post.	50
Grove street, southwest corner of Anthony.	32
Harbor street, east side, 195 feet north of Cove. Post.	60
Harbor street, east side, 372 feet north of Cove. Post.	60
Harbor street, east side, 540 feet north of Cove. Post.	60
Harbor street east side, 195.8 feet south of Gifford. Post.	61
Harbor street, southeast corner of Gifford. Post.	61
Harmony street, southwest corner of Social. Post.	59
Harrison street, southwest corner of Hickory. Post.	48
Hathaway avenue, south side, 233.4 feet east of Church. Post.	33
Hawthorn street, southeast corner of Page.	28
Hawthorn street, south side, east of Tremont 147 feet. Post.	28
Hawthorn street, southwest corner of Brigham. Post.	26
Hawthorn street, south side, 301 feet west of Brigham. Post.	24
Hazard street, south side, west of State 140 feet.	36
Hazard street, southwest corner of Pleasant.	46
Hemlock street, west side, 231 feet south of Rockland. Post.	50
Hicks street, south side, east of Acushnet avenue 276 feet. Post.	56
High street, south side, east of Acushnet avenue 43 feet.	48
High street, southwest corner of Purchase. Post.	42
High street, south side, east of County 177 feet.	23
Highland street, west side, 418.4 feet north of Durfee. Post.	12
Hillman street, southwest corner of Second.	57
Hillman street, southwest corner of Purchase. Post.	45
Hillman street, southeast corner of Hill.	32
Hillman street, southwest corner of Chancery. Post.	29
Holly street, southwest corner of Belleville avenue. Post.	61

	Pressure in lbs.
Holly street, southwest corner of Bowditch. Post.	48
Holly street, southeast corner of Brook. Post.	47
Hollyhock street, south side, 133 feet east of Field. Post. . . .	40
Howard avenue, south side, 364 feet east of Acushnet avenue. Post.	52
Howland street, northeast corner of Second	63
Howland street, south side, 19.2 feet west of Prospect. Post. . .	60
Hunter street, west side, 167 feet north of North. Post.	24
Independence street, south side, 480 feet west of County. Post. .	57
Irving court, north end of court.	25
James street, west side, 107 feet north of Arnold. Post.	24
James street, southwest corner of Court. Post.	24
Katharine street, south side, 66.7 feet east of Crapo. Post. . . .	62
Kempton street, southwest corner of Pleasant. Post.	36
Kempton street, south side, opposite Hill.	28
Kempton street, southwest corner of Summer.	19
Kempton street, southwest corner of Emerson.	26
Kempton street, southwest corner of Park.	28
Kempton street, southwest corner of Liberty.	29
Kempton street southeast corner of Jenney.	26
Kempton street, south side, west of Hunter 50 feet. Post.	21
Kempton street, southwest corner of Francis. Post.	14
Kilburn street, north side, east of Front 244 feet. Post.	62
Kilburn street, north side, east of Front 581 feet. Post.	64
Larch street, south side, 120 feet east of Mulberry. Post.	45
Larch street, south side, 129 feet east of Hemlock. Post.	51
Liberty street, west side, south of Kempton 339 feet.	30
Lincoln street, west side, south of Union 171 feet.	23
Linden street, south side, west of State 13½ feet. Post.	43
Linden street, south side, west of County 169 feet. Post.	34
Linden street, south side, 67½ feet west of Reynolds. Post. . . .	24
Linden street, South side, 6½ feet east of Ashland. Post.	14
Lindsey street, west side, 173 feet south of Kempton. Post. . . .	27
Lindsey street, northwest corner of Morgan. Post.	24
Locust street, southwest corner of Chestnut. Post.	23
Locust street, southeast corner of Richmond. Post.	15

Pressure
in lbs.

Logan street, south side, east of Acushnet avenue 400 feet.	62
Logan street, southwest corner of Acushnet avenue.	63
Lombard street, west side, 209½ feet south of Rockland. Post. . .	50
Madison street, southwest corner of First.	61
Madison street, southwest corner of Sixth. Post.	41
Maitland street, southwest corner of Cedar. Post.	19
Maitland street, south side, 101 feet west of Richmond. Post. . .	16
Maxfield street, southwest corner of Second. Post.	58
Maxfield street, southwest corner of Purchase. Post.	46
Maxfield street, southwest corner of Pleasant. Post.	38
Maxfield street, southeast corner of Chestnut.	19
Maxfield street, southeast corner of Spruce.	21
Maxfield street, southeast corner of Ash. Post.	22
Maxfield street, south side, 44.4 feet east of Chancery. Post. . .	27
McGurk street, west side, 348 feet north of Middle Point road. Post.	55
Mechanics lane, northwest corner of Purchase. Post.	42
Mechanics lane, north side, east of Eighth 206 feet.	30
Merrimac street, southwest corner of State. Post.	41
Middle street, southwest corner Second. Post.	52
Middle street, southwest corner Acushnet avenue. Post.	46
Middle street, southwest corner of Purchase. Post.	42
Middle street, southeast corner of Sixth. Double.	36
Middle street, south side, east of Cedar 371 feet.	32
Middle street, southeast corner of Chancery.	29
Mill street, northwest corner of Purchase. Post.	43
Mill street, south side, west of Hill 191 feet.	25
Mill street, south side, west of Ash 45 feet.	25
Mill street, southeast corner of Newton. Post.	26
Mill street, south side, 138 feet west of Hunter. Post.	18
Mill street, south side, 97.9 feet west of Beech. Post.	14
Mitchell street, northwest corner of Coggeshall. Post.	61
Mitchell street, west side, 178.8 feet north of Coggeshall. Post. .	63
Mitchell street, west side, 345 feet south of Sawyer. Post. . . .	61
Mitchell street, southwest corner of Sawyer. Post.	61
Morgan street, southwest corner of Cottage.	33

	Pressure in lbs.
Morton's court, west side, 385.3 feet north of Cove. Post.	59
Mosher street, south side, west of County 517 feet. Post.	59
Mt. Pleasant street, southeast corner of distributing reservoir. . . .	4
Mt. Pleasant street, west side, north of Durfee 572 feet.	8
Mt. Pleasant street, northwest corner of Durfee. Post.	12
Mt. Vernon street, south side, 359 feet west of Mt. Pleasant. . . .	6
Myrtle street, west side, 22 feet south of Weld. Post.	23
Myrtle street, west side, 35 feet south of Clark. Post.	23
Nelson street, south side, 541.6 feet west of County. Post. . . .	60
Newton street, northwest corner of Elm. Post.	29
North street, southeast corner of Second. Post.	54
North street, southwest corner of Acushnet avenue. Post. . . .	49
North street, southwest corner of Purchase. Post.	41
North street, northwest corner of Pleasant. Post.	35
North street, southwest corner of Foster.	35
North street, southwest corner of Park. Post.	29
North street, southeast corner of Newton. Post.	32
North street, southwest corner of Hunter. Post.	22
North street, southwest corner of Beech. Post.	17
Nye street, southwest corner of Belleville avenue. Post. . . .	60
Nye street, southwest corner of Front. Post.	54
Oak street, southwest corner of Harrison. Post.	45
Oak street, northwest corner of Grape. Post.	41
Oak street, southwest corner of Allen. Post.	38
Ocean street, west side, 184½ feet south of Arnold. Post. . . .	32
Old Point road, west side, east of French avenue 650 feet. . . .	53
Old Point road, west side, 2,510 feet east of McGurk.	43
Orchard street, west side, head of Madison.	27
Orchard street, southwest corner of Grove. Post.	34
Page street, west side, 429½ feet south of Hawthorn. Post. . . .	36
Palmer street, west side, 113 feet south of Court. Post.	19
Park place, south side, west of Sixth 306 feet.	32
Park street, west side, 27.1 feet south of Maxfield. Post. . . .	24
Park street, southwest corner of Hillman. Post.	25
Park street, west side, south of Kempton 339 feet. Post. . . .	27
Park street, northwest corner of Court. Post.	28

	Pressure in lbs.
Park street, west side, north of Arnold 263 feet. Post.	34
Parker street, south side, at Oak Grove cemetery. Post.	25
Parker street, southwest corner of Summer.	27
Pearl street, southwest corner of Pleasant. Post.	41
Pearl street, southwest corner of Purchase. Post.	50
Pine street, northwest corner of Cross.	65
Pleasant street, northwest corner of Market. Post.	40
Pleasant street, west side, north of William 21½ feet. Post. . . .	40
Pleasant street, east side, foot of Sycamore. Post.	39
Pleasant street, northwest corner of Pope.	42
Pleasant street, northwest corner of Austin.	47
Pleasant street southwest corner of Linden.	48
Pleasant street, southwest corner of Weld. Post.	48
Pope street, south side, opposite North Oak.	32
Pope street, south side, 226 feet east of Chestnut. Post.	21
Poplar road, south side, 431 feet west of Bolton road. Post. . . .	52
Potomska street, a group of three post hydrants located about 300 feet east of Prospect and 91 feet north of south line of Potom- ska street.	64
Prospect street, west side, 275.2 feet north of Grinnell. Post. . .	61
Prospect street, northwest corner of Grinnell. Post.	63
Prospect street, west side, north of Potomska 324½ feet. Post. . .	62
Prospect street, northwest corner of Potomska. Post.	63
Purchase street, northwest corner of Dean. Post.	43
Purchase street, west side, opposite Onoko Mill. Post.	48
Purchase street, east side, opposite Clark. Post.	58
Purchase street, west side, opposite Logan.	58
Purchase street, northwest corner of Merrimac. Double.	51
Purchase street, northwest corner of Pope.	52
Purchase street, west side, 348 feet south of Campbell. Post. . .	48
Purchase street, northwest corner of Union.	43
Reed street, west side, 145 feet north of Court. Post.	19
Reed street, west side, 25 feet north of Elm. Post.	15
Reed street west side, 293 feet south of Kempton. Post.	18
Reynolds street, southwest corner of Weld. Post.	26
Reynolds street, west side, 17.9 feet south of Clark. Post.	29

Pressure
in lbs.

River street, southwest corner of Belleville avenue. Post.	60
River street, southeast corner of Front. Post.	53
Riverside avenue, west side, 155 feet north of Coffin avenue. Post.	63
Rivet street, southwest corner of Second.	62
Rivet street, southwest corner of County. Post.	59
Rivet street, southwest corner of Bonney. Post.	59
Rivet street, southwest corner of Hemlock. Post.	51
Rivet street, southeast corner of Bolton road. Post.	56
Robeson street, southwest corner of County. Post.	26
Robeson street, southeast corner of Cottage. Post.	19
Robeson street, southwest corner of Ashland. Post.	15
Robeson street, southeast corner of Cedar. Post.	21
Robeson street, south side, 424 feet west of Cedar. Post.	17
Rockdale avenue, southwest corner of Bolton road. Post.	57
Rockdale avenue, south side, 327 feet west of Bolton road. Post.	54
Rockland street, southwest corner of County. Post.	58
Rockland street, southeast corner of Hall. Post.	56
Rockland street, south side, 13 feet west of Orchard. Post. . . .	54
Rockland street, south side, 179.3 feet east of Hemlock. Post. . .	51
Rockland street, southwest corner of Lombard. Post.	50
Rounds street, northwest corner of Elm. Post.	22
Rural street, southwest corner of Allen. Post.	28
Russell street, south side, east of Fifth 92 feet.	54
Russell street, southwest corner of Sixth. Post.	47
Russell street, south side. 179 feet west of Sixth. Post.	42
Salisbury street, west side, 598 feet south of Cove. Post.	53
Sawyer street, southwest corner of Bowditch. Post.	53
Sawyer street, southwest corner of Acushnet avenue. Post.	59
Sawyer street, southeast corner of Belleville avenue. Post. . . .	65
Sawyer street, north side, 750 feet east of Belleville avenue. Post.	63
Sawyer street, south side, 418.8 feet east of Mitchell. Post. . . .	64
School street, southwest corner of Sixth. Post.	37
Scott street, south side, 325 feet west of County. Post.	59
Second street, northwest corner of Mill.	55
Second street, west side, south of Elm 52 feet. Post.	52
Second street, west side, south of Spring 74 feet.	55

	Pressure in lbs.
Second street, northwest corner of Coffin.	61
Second street, west side, at head of Morgan's lane. Post.	60
Second street, west side, north of Grinnell 61 feet.	63
Second street, west side, north of Potomska 232 feet. Post.	61
Second street, west side, south of Potomska 122 feet. Post.	63
Second street, west side, 188 feet south of Blackmer. Post.	59
Seventh street, southwest corner of Union. Post.	31
Seventh street, west side, north of Madison 50 feet.	36
Shawmut avenue, southwest corner of Willis. Post.	18
Shawmut avenue, southwest corner of Parker. Post.	18
Shawmut avenue, west side, head of Locust. Post.	17
Shawmut avenue, southwest corner of Robeson. Post.	14
Shawmut avenue, west side, north of Austin. Post.	13
Shawmut avenue, west side, 497 feet north of Durfee. Post.	12
Shawmut avenue, southwest corner of Grand. Post.	11
Shawmut avenue, west side, 203 feet north of Grand. Post.	11
Sherman street, south side, west of County 314 feet.	51
Shore street, west side, 264 feet south of Cove road. Post.	61
Short street, west side, 321 feet south of Allen Post.	34
Sisson street, northwest corner of Union. Post.	25
Sixth street, west side, north of Grinnell 194 feet. Post.	60
Smith street, southwest corner of Chestnut. Double.	22
Smith street, southeast corner of Spruce. Double.	20
Smith street, southeast corner of Shawmut avenue.	22
Smith street, south side, east of Park 5 feet. Post.	29
South street, southwest corner of Acushnet avenue. Post.	57
South street, southwest corner of Second. Post.	59
South street, southwest corner of First. Post.	59
South street, southwest corner of Water. Post.	63
South street, southwest corner of Prospect. Post.	61
Spring street, southeast corner of Acushnet avenue. Post.	51
Spring street, southwest corner of Seventh.	32
Spring street, southeast corner of Fifth.	42
Spruce street, west side, 347 feet north of Parker. Post.	21
State street, northwest corner of Sycamore.	35
State street, southwest corner of Pearl.	34

	Pressure in lbs.
Stone street, west side, 208.6 feet south of Allen. Post.	38
Summer street, northwest corner of North.	16
Summer street, northwest corner of Hillman.	16
Summer street, southwest corner of Willis.	26
Sycamore street, southwest corner of Thomas.	30
Sycamore street, southwest corner of Summer.	24
Sycamore street, south side, west of Ash 68 feet.	22
Tallman street, southwest corner of Belleville avenue. Post. . .	61
Thomas street, northwest corner of Hillman.	24
Thompson street, southeast corner of Bourne. Post.	44
Thompson street, south side, 20 feet east of Hall. Post.	58
Thompson street, south side, 302 feet west of Bonney. Post. . .	55
Thompson street, southwest corner of County. Post.	59
Tremont street, southwest corner of Union. Post.	26
Tremont street, northwest corner of Maple. Post.	29
Trinity street, south side, 145 feet west of Cedar. Post.	19
Union street, southwest corner of Front. Post.	63
Union street, southwest corner of Water. Post.	57
Union street, southwest corner of First. Post.	56
Union street, southwest corner of Second. Post.	52
Union street, southwest corner of Acushnet avenue. Post. . . .	48
Union street, southwest corner of Sixth. Post.	38
Union street, southeast corner of Emerson. Post.	28
Union street, south side, 344 feet west of Park. Post.	28
Viall street, west side, 188 feet south of Cove. Post.	59
Walden street, southwest corner of Maxfield.	31
Wall street, south side, east of Acushnet avenue 165 feet.	62
Walnut street, northwest corner of Front. Post.	61
Walnut street, southwest corner of Second.	57
Walnut street, southeast corner of Fourth. Double.	51
Walnut street, southwest corner of Seventh. Post.	38
Wamsutta street, south side, west of Front 200 feet. Post. . . .	65
Wamsutta street, south side, west of Front 372 feet. Post. . . .	65
Wamsutta street, south side, east of Acushnet ave. 285 feet. D'ble.	64
Ward street, southwest corner of Bay. Post.	44
Washburn street, southeast corner of Acushnet avenue. Post. . .	59

	Pressure in lbs.
Washburn street, south side, west of North Front 228 feet. Post.	59
Washington street, southwest corner of County. Post.	57
Washington street, southwest corner of Crapo. Post.	56
Washington street, south side, west of Orchard 102 feet.	50
Washington street, southeast corner of Dartmouth.	46
Water street, southwest corner of Hillman.	65
Water street, southwest corner of North. Post.	64
Water street, west side, south of North 258 feet.	63
Water street, northwest corner of Middle. Double.	62
Water street, southwest corner of Elm.	60
Water street, west side, north of Centre 46 feet.	50
Water street, west side, north of School 22 feet.	60
Water street, northwest corner of Walnut.	61
Water street, northwest corner of City wharf.	62
Water street, northwest corner of Coffin.	64
Water street, west side, head of Pine. Post.	67
Water street, west side, head of Leonard. Post.	62
Water street, southwest corner of Howland. Post.	60
Water street, northwest corner of Grinnell. Post.	60
Water street, northwest corner of Potomska. Post.	63
Water street, west side, 266 feet south of Potomska. Post. . . .	63
Water street, northwest corner of Rivet. Post.	63
Water street, southwest corner of Blackmer. Post.	63
Water street, northwest corner of Delano. Post.	62
Water street, west side, head of Gifford. Post.	62
Water street, northwest corner of Cove. Post.	62
Weld street, southwest corner of State. Post.	43
William street, southwest corner of Bethel. Post.	51
William street, southwest corner of Second. Post.	48
William street, southeast corner of Acushnet avenue. Post. . . .	47
William street, southwest corner of Purchase. Post.	43
William street, southwest corner of Sixth. Post.	38
William street, southwest corner of Eighth.	26
Willis street, southwest corner of Purchase. Post.	50
Willis street, southeast corner of Pleasant. Post.	41
Willis street, southwest corner of State.	32

	Pressure in lbs.
Willis street, southwest corner of County. Post.	26
Willis street, southwest corner of Cottage. Post.	19
Willis street, south side, west of Cedar 200 feet.	18
Willow street, south side, 305.1 feet east of Cedar. Post.	16
Willow street, southeast corner of Shawmut avenue. Post.	13
Wing street, southwest corner of Fourth.	57
Wing street, southwest corner of Sixth. Post.	57
Winsor street, south side, west of County 455½ feet. Post.	58
Winsor street, south side, 77½ feet east of Crapo. Post.	60
Number of flush hydrants,	172
Number of post hydrants,	435
Total number of hydrants,	607

Summary of Statistics.

REPORT OF 1894.

IN ACCORDANCE WITH SUGGESTIONS ADOPTED
BY THE

New England Water Works Association.

NEW BEDFORD WATER WORKS, BRISTOL COUNTY, MASS.

Population by census of 1890,

40,705

Date of construction,

1866 to 1869, inclusive.

By whom owned,

The property of the City of New Bedford.

Source of supply,

From a storing reservoir artificially formed by constructing a dam across the valley of the Acushnet river, seven miles north of the center of the city.

Mode of supply,

By gravitation into the city, thence pumped into a distributing reservoir on an elevated site.

PUMPING.

1. Builders of pumping machinery,

- a. McAlpine engine, built by Quintard Iron Works.
- b. Worthington engine, built by Henry R. Worthington.
- c. High duty Worthington engine, built by Henry R. Worthington.

2. Description of coal,

First contract :

- a. Not applicable.
- b. Bituminous.
- c. Not applicable.
- d. George's Creek Cumberland.
- e. Price per gross ton, delivered, \$4.23.
- f. Percentage of ash, 8.
- g. Wood, price per cord, \$4.00.

Second contract :

- a. Not applicable.
- b. Bituminous.
- c. Not applicable.
- d. Pocahontas.
- e. Price per gross ton, delivered, \$4.20.
- f. Percentage of ash, 12.
- g. Wood, price per cord, \$4.00.

Third contract :

- a. Anthracite.
- b. Not applicable.
- c. Pea.
- d.
- e. Price per gross ton, delivered, \$5.00.
- f. Percentage of ash, 16.
- g. Wood, price per cord, \$4.00.

	McAlpine.	Worthington.	High Duty Worthington.
3. Coal consumed for the year, in pounds,			
	1,000,995	305,800	1,225,600
4. $\frac{\text{Lbs. of wood consumed inpounds.}}{3} = \text{coal,}$			
	33	133	540
5. Total fuel consumed for the year (3) + (4),			
	1,001,028	305,933	1,225,780
6. Total pumpage for the year in gallons,			
	649,615,574	157,965,580	959,810,926

	McAlpine.	Worthington.	High Duty Worthington.
7. Av. static head against which pumps work,			
	125.8	125.8	125.2
8. Av. dynamic head against which pumps work,			
	135.1	127	127.5
9. a. Number of gallons pumped per pound of coal (3),			
	649	516	783
b. Number of gallons raised 100 feet per pound of coal for to- tal coal (3),			
	877	655	999
10. Duty in foot pounds per 100 pounds of coal, using following form- ula, making no deduc- tions for starting, banking fires, heating building, or anything else,			

Duty=	$\frac{\text{Gallons pumped (6)} \times 8.34 \text{ (lbs.)} \times 100 \times \text{dynamic head (8)}}{\text{Total fuel consumed (5).}}$		
	73,097,580	54,694,053	83,295,142

COST OF PUMPING, FIGURED ON PUMPING STATION EXPENSES, VIZ.:
\$11,920.89.

11. Per million gallons raised against average dynamic head (8) into reservoir,	
	\$6.74
12. Per million gallons raised one foot high (dynamic),	
	5.18 cents

COST OF PUMPING FIGURED ON TOTAL MAINTENANCE (see Financial CC.), VIZ.: \$54,191.02.

13. Per million gallons raised against average
dynamic head (8) into reservoir,
\$30.66
14. Per million gallons raised one foot high
(dynamic),
23.54 cents

FINANCIAL. MAINTENANCE.

RECEIPTS.		EXPENDITURES.	
<i>From Consumers:</i>		AA. Management and repairs, less interest and sinking funds, . . .	
A.	Water rates, domestic,		\$31,491.02
B.	Water rates, manufacturing,		37,866.67
C.	Net receipts from water,	Total maintenance for year,	
D.	Miscellaneous (sales, etc.),	CC. Bonds paid,	\$69,357.69
E.	Total,	Sinking funds,	120,000.00
			2,700.00
<i>From Public Funds:</i>		KK. Total,	
{ General appropriations, water,			
J.	{ General appropriations, debt,		
K.	Gross receipts,		
	Balance to construction,		
			\$192,057.69

CONSTRUCTION.

RECEIPTS.		EXPENDITURES.	
r. Balance from previous year,	\$43,503.21	Balance from maintenance,	\$78,511.98
s. Refunding bonds issued,	120,000.00	FF. Extensions, mains,	17,609.45
U. Other sources (services, private lines, meters, etc.),	8,862.76	GG. Extensions, services,	
		a. Services,	\$5,072.40
		b. Mill pipe, fountains, meters,	1,653.19
		HH. Special extensions,	5,609.86
		II. Total construction for year,	\$108,456.88
		JJ. Balance,	63,909.09
V. Total,	\$172,365.97	KK. Total,	\$172,365.97
w. Net cost of works to this date,			\$1,620,066.67
x. Bonded debt at this date, \$540,000; trust fund, \$100,000,			640,000.00
y. Sinking fund,			6,848.00
z. Average rate of interest,			5 $\frac{1.9}{100}$ per cent.

CONSUMPTION.

1.	Estimated total population at date,	56,000
2.	Estimated population on lines of pipe at date,	45,512
3.	Estimated population supplied at date,	44,661
4.	Total number gallons consumed for year,	1,747,167,532
5.	Passed through domestic meters,	13,590,386 gallons, or $0\frac{8}{10}$ per cent.
6.	Passed through manufacturing meters,	233,494,702 gallons, or 13 per cent.
7.	Average daily consumption in gallons,	4,786,760
8.	Gallons per day to each inhabitant (1),	85
9.	Gallons per day for each customer (3),	107
10.	Gallons per day to each tap (distribution 22),	616

DISTRIBUTION.

MAINS.

1.	Kind of pipe used,	Wrought iron cement-lined, and cast iron.
2.	Size,	From 4 to 30 inches.
3.	Extended,	17,290 feet.
4.	Discontinued,	4,522 feet.
5.	Total now in use,	$74\frac{65,255}{10,000}$ miles

6.	Cost of repairs per mile,	\$22.16
7.	Number of leaks for the year,	10
8.	Small distribution pipe, less than 4 inches, total length,	6,181 feet.
9.	<i>a.</i> Fire hydrants added,	22
	<i>b.</i> Watering-cart connections added,	2
10.	<i>a.</i> Number of fire hydrants now in use,	607
	<i>b.</i> Number of watering-cart hydrants now in use,	42
11.	Stop gates added,	27
12.	Number now in use,	835
13.	Small stop gates, less than 4 inches, total,	65
14.	Number of blow-off gates,	76
15.	Range of pressure at centre for day and night,	29 to 40 lbs.

SERVICES.

16.	Kind of pipe used,	Lead and cast iron.
17.	Size,	From $\frac{1}{2}$ to 8 inches.
18.	Extended,	8,673 feet.
19.	Discontinued,	563 feet.

20.	Total now in use	
		48 $\frac{13}{100}$ miles.
21.	Service taps added,	236
22.	Number now in use,	7,767
23.	Average length of service laid during past year,	33 feet.
24.	Average cost of service,	
	<i>a.</i> Gross,	\$19.36
	<i>b.</i> Net,	8.93
25.	Meters added,	49
26.	Number now in use,	
	<i>a.</i> Domestic,	163
	<i>b.</i> Manufacturing,	59
27.	Motors and elevators added,	37
28.	Number now in use,	68

IN BOARD OF ALDERMEN,
January 10, 1895.

Received and ordered printed in the City Documents,
and sent down for concurrence.

D. B. LEONARD,
City Clerk.

IN COMMON COUNCIL,
1 mo. 10, 1895.

Concurred.

WM. A. MACKIE,
Clerk.

1894—CITY DOCUMENT No. 4.

FORTY-THIRD ANNUAL REPORT

OF THE

TRUSTEES

OF THE

FREE PUBLIC LIBRARY

OF THE

CITY OF NEW BEDFORD,

MASS.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS,

1895.

Officers of the Free Public Library

FOR THE YEAR 1895.

TRUSTEES.

Ex officio. Terms expire January, 1896.

DAVID L. PARKER, Mayor of the City.

OLIVER PRESCOTT, JR., President of the Common Council.

LUTHER G. HEWINS, JR., Chairman of the Committee of the City Council on Public Instruction.

Elected by the City Council.

LEONARD B. ELLIS,	Term expires April, 1895.
ARTHUR G. GRINNELL,	Term expires April, 1895.
WALTER S. ALLEN,	Term expires April, 1896.
ALEXANDER McL. GOODSPEED,	Term expires April, 1896.
ISAAC B. TOMPKINS, JR.,	Term expires April, 1897.
MATTHEW C. JULIEN,	Term expires April, 1897.

PRESIDENT OF THE BOARD.

THE MAYOR.

CLERK.

ARTHUR G. GRINNELL.

COMMITTEES.

On the Library—Messrs. JULIEN, GRINNELL, and ALLEN.

On Finance—Messrs. ALLEN, TOMPKINS, and GOODSPEED.

On the Building—Messrs. TOMPKINS, ELLIS, and PRESCOTT.

LIBRARIAN.

ROBERT C. INGRAHAM.

ASSISTANT LIBRARIAN.

ASSISTANTS.

JOSEPHINE A. MERRICK. MARY E. BROWN.

SUSIE H. GAMMONS.

PAGE.

CLEMENT L. YAEGER.

JANITOR.

YORICK W. AMES.

REPORT.

To the City Council of the City of New Bedford.

GENTLEMEN : — We have the honor to present for your consideration the forty-third annual report of the Trustees of the Free Public Library.

Believing that the purpose and aim of the library is greatly hindered and obstructed by the entirely inadequate quarters, we must once more call your attention to the need of a new building, not only because the books demand more convenient and available space for their satisfactory care and use, but also because so valuable a collection as we have had for many years ought to be kept in a more commodious and a fire-proof building. A modern public library is not simply a collection of books to be loaned out or read in the building ; it is more a bureau of information where any one should be able to satisfy his enquiries either by application to the books directly or to those who have them in charge ; it should literally be a fountain of knowledge.

If the condition of the books is such that they are not readily accessible, or if there is no place where they can be satisfactorily studied, then one of the most important functions of the library is hampered and it loses a part of its value. Our reference library of less than 400 volumes, placed on one side of the reading room and open to the public, is cramped for room, small as it is. It should contain at least five thousand volumes, and should be so situated that students might consult it in quiet and retirement away from those who wish only to read.

For a collection of this size we have many fine and valuable art works, but there is no satisfactory place where they can be looked at and used. We have also an unusually large number of bound newspapers which are in constant demand, but unfortunately there are no tables, nor space for tables, where the papers may be conveniently examined. In the lofts are stored valuable government and legal reports which suffer damage from occasional leaks or falling plaster. Our reading room is totally inadequate to the demands made upon it, and want of room and of agreeable surroundings deter many from enjoying what should be a strong point of the institution. Although one of the first free public libraries started in this country, antedating the Boston library by a few days, it has for so many years been hampered by the lack of proper accommodations and resources that its usefulness has been seriously impaired, and it cannot now compare with many libraries in country towns, which are hardly a third as large.

The work of the library for the past year has been satisfactory considering the great disadvantages under which it has labored. A finding list is being prepared which, although not as complete and satisfactory as the subject catalogue, which is also being pushed as rapidly as possible, yet can be made available much sooner.

The Dewey system of cataloguing necessitates more shelf room than the old methods, and to meet this requirement new shelving has been placed in the galleries; although not very accessible, yet it is better than having the volumes piled on the floors. Several minor changes for the convenience of the public have been made in the delivering of books. School teachers can now take out three volumes at a time on a single card. The list of magazines and periodicals taken has been revised and increased,

a number of the more popular of which will soon go into circulation.

With deep regret we find ourselves compelled to accept the resignation of our assistant librarian, Mr. W. L. R. Gifford. The trustees appreciate the valuable service which during the last ten years he has rendered to the library and to the public. We realize how very difficult it will be to fill with equal satisfaction the position which his departure will make vacant.

The following report of the finance committee shows the expenses of the past year, and the estimated amount necessary for the year 1895, made after a careful and thorough study of the library needs:

The Committee on Finance of the Board of Trustees respectfully submits the following report:

The total expenditures of the library during the year ending Dec. 31, 1894, amount to \$11,754.25, distributed as follows:

Salaries,	\$5,970.00
Purchase and binding of books,	2,717.30
Subscriptions to and binding of periodicals,	772.62
Newspapers for reading room, not preserved,	154.45
Library furniture,	144.00
Insurance for three years,	375.00
Catalogue work,	480.00
Page,	103.00
Supernumerary assistants,	420.75
Expenses of Sunday opening,	220.50
Sundries, including printing and advertising,	396.63
	<hr/>
	\$11,754.25

These expenses were met with income from the following sources:

City appropriation,	\$5,970.00
Dog fund, by statute,	1,337.59
Income from trust funds,	3,726.00

Special appropriation of 1893 for cataloguing, balance,	\$480.00
From previous accumulations of trust fund in- come,	240.66
	<hr/>
	\$11,754.25

On Dec. 31, 1894, the balances standing to the credit of the various funds were as follows:

George Howland, Jr., fund,	\$360.53
Charles W. Morgan fund,	64.54
James B. Congdon fund,	372.07
Oliver Crocker fund,	257.90
George O. Crocker fund,	254.98
Charles L. Wood fund,	120.00
Dog fund,	.26
	<hr/>
	\$1,430.28

The first three of these funds, amounting to \$797.14, are restricted in their uses, so that on Dec. 31, 1894, there was available for general library purposes \$663.14,— a very small amount with which to meet any extraordinary expenses, and as low as prudence of management should allow the reserve to go.

On Dec. 31 the city auditor enters on his books to the credit of the trustees the half-yearly income of the various funds so that at the opening of business on Jan. 1, 1895, the amount at the credit of the various funds will stand as follows:

Sylvia Ann Howland,	\$1,500.00
George Howland, Jr.,	408.53
Charles W. Morgan,	94.54
James B. Congdon,	387.07
Oliver Crocker,	287.90
George O. Crocker,	454.98
Charles L. Wood,	160.00
Dog fund,	.26
	<hr/>
	\$3,293.28

And on July 1 there will be added as interest for the half-year,

1,863.00

And in January there will be received from the dog fund as paid over by the county treas'r, say

1,300.00

Making the total available resources,	\$6,456.28
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Of these resources there is the sum of \$3,983.14 restricted to the purchase of books, thus leaving \$2,473.14 available for general library purposes, from which must be paid the wages of three supernumerary assistants and a page, the expenses of the Sunday opening, the subscriptions to newspapers for the reading room which are not to be bound or preserved, library furniture, and sundry expenses, the larger of which are printing and advertising. There remains also of the special appropriation made for the catalogue work \$96.33, an amount sufficient to continue the work in the present manner for two months longer.

Your committee would respectfully submit to the board the following estimates:

For books and binding,	\$3,500.00
Periodicals and binding,	1,000.00
Newspapers for files,	200.00
Supernumerary assistants,	500.00
Sunday opening,	250.00
Furniture, to include purchase of a new typewriter,	300.00
Cataloguing, to include the services of two assist'ts,	1,500.00
Sundries, including printing,	750.00
Salaries,	6,500.00
	<hr/>
	\$14,500.00

The income mentioned for the year will amount to \$5,026.00, so that the amount which would be required as an appropriation would be \$9,474.00.

The increases asked for in the above items are asked for the following reasons, each item being considered in detail:

Books and binding, increase over last year's expenditure, \$782.70. This is asked because of a belief that more money can be wisely expended in the purchase of new books which cover fields wherein the library is now somewhat inadequately supplied, as for instance natural science and applied science.

Periodicals, increase \$227.38. A large part of this will be needed for binding the new periodicals subscribed for this year for the first time, and a portion of this and the increase asked for the purchase of books should be applied to the purchase of bound volumes of many of the periodicals in order to complete as far as possible the sets of those referred to in Poole's Index.

Newspapers for files, not to be preserved, increase \$15.55. The papers now in the reading room should be supplemented by others

from different parts of the country, and this increase would allow the addition of say six or eight from the larger cities outside of Boston and New York.

Supernumerary assistants, increase \$79.25. This is to cover the additional services now imperatively demanded on Saturday afternoon and evening, making it necessary to have one more assistant than formerly on duty at that time.

Sunday opening, increase \$29.25. This is to allow of keeping the library open more Sundays or later each Sunday than is now the case.

Furniture, to include the purchase of an additional typewriter, increase \$156.00. Of this amount \$100.00 will be needed for the typewriter, and the remainder will be needed for periodical racks, chairs, etc., for the reading room. The additional typewriter will be needed for a second worker on the catalogue.

Catalogue work, increase \$1,020.00. It is proposed that this money shall be expended for the salary of a second assistant on the card catalogue of subjects and also to allow of the immediate issue of a new catalogue of fiction, which must in any event be issued before very long.

Sundries, including printing, increase \$353.37. This increase is to provide means for printing the catalogue of fiction.

Salaries, increase \$530. Owing to the change in the staff due to the resignation of the assistant librarian, there will be extra work required, and the trustees are assured that Mr. Gifford will be allowed by the trustees of the Cambridge public library to aid in the instruction of a new man in his place. This aid will be necessary and will require the payment for a portion of the year of a double salary, and therefore more will be needed than formerly. This latter item is kept as low as possible and does not take into account any change in the rate of pay of the present staff, which might possibly be raised to advantage.

Your committee would therefore for the reasons stated above suggest that the Board of Trustees apply to the city council for an appropriation for the year 1895 of \$9,474.00.

Respectfully submitted.

WALTER S. ALLEN,
ISAAC B. TOMPKINS, JR.,
A. McL. GOODSPEED,
Finance Committee.

APPENDIX.

GENERAL STATISTICS FOR 1894.

Books and pamphlets purchased in 1894,	1,629
Volumes donated in 1894,	388
Pamphlets donated in 1894,	274
Volumes bound,	215
Volumes re-bound and repaired,	417
Volumes worn out and rejected,	396
New cards issued,	1,255
Newspapers now on file in the reading room,	23
Books taken from the library in 1894,	104,591
Increase of circulation over that of 1893,	15,946

The following table shows the attendance at the library on Sundays during 1894. The largest attendance was 77, November 11; the smallest was 11, June 10; total attendance for 43 Sundays, 1,777; average attendance, 41, an increase of 8 over the average for 1893. The library was closed on Sunday during July and August.

Jan. 7.	42
14.	36
21.	60
28.	64
Feb. 4.	58
11.	55
18.	41
25.	59
Mar. 4.	46
11.	45
18.	54
25.	52
Apr. 1.	29
8.	32
15.	32
22.	32
29.	33

May 6.	30
13.	22
20.	19
27.	15
June 3.	19
10.	11
17.	17
24.	27
Sept. 2.	24
9.	26
16.	39
23.	30
30.	53
Oct. 7.	46
14.	44
21.	31
28.	30
Nov. 4.	44
11.	77
18.	57
25.	69
Dec. 2.	55
9.	60
16.	64
23.	61
30.	37

FINANCIAL STATEMENT OF THE FREE PUBLIC LIBRARY FOR 1894.

STATEMENT OF THE LIBRARIAN.

1894.

Jan. 1.	Cash on hand,	\$45.53	
	Sale of paper stock,	4.50	
	Books lost and damaged,	7.39	
	Fines during 1894,	233.87	\$291.29
	 Paid for expressage, freight, and jobbing,	 \$30.30	
	P. O. box and postage,	23.92	
	Books and papers,	12.55	
	Binding and paper cutting,	2.80	
	Stationery,	32.28	
	Photographs,	15.30	
	Incidentals,	114.12	
1895. Jan. 1.	Balance in hands of librarian,	60.02	\$291.29

FREE PUBLIC LIBRARY ACCOUNT.

1894.	Salaries, January,	\$497.50	
	February,	497.50	
	March,	497.50	
	April,	497.50	
	May,	497.50	
	June,	497.50	
	July,	497.50	
	August,	497.50	
	September,	497.50	
	October,	497.50	
	November,	497.50	
	December,	497.50	\$5,970.00
1894.	Annual appropriation,		\$5,970.00

UNEXPENDED BALANCES, JANUARY 1, 1894.

1894.

Jan. 1.	Sylvia Ann Howland fund,	\$1,499.01	
	George Howland, Jr., fund,	312.53	
	Charles W. Morgan fund,	148.84	
	Oliver Crocker fund,	247.90	
	George O. Crocker fund,	775.29	
	James B. Congdon fund,	470.37	
	Charles L. Wood fund,	80.00	
	Catalogue account,	576.33	\$4,110.27

SYLVIA ANN HOWLAND FREE PUBLIC LIBRARY FUND.

1894.

Jan. 1.	Unexpended balance of income,	\$1,499.01	
July 1.	Six months' interest,	1,500.00	
Dec. 31.	Six months' interest,	1,500.00	
	Transfer from George O. Crocker fund, periodicals,	66.31	\$4,565.32

Bills approved for books, periodicals, and binding:

January audit,	\$254.83	
February,	158.23	
March,	185.95	
April,	323.61	
May,	257.12	
June,	261.90	
July,	172.45	
August,	246.69	
September,	200.35	
October,	323.38	
November,	680.81	\$3,065.32

The detailed statement of the expenditures from the income of this fund is as follows:

Academy of Natural Sciences, Philadelphia,	\$5.00
Allyn & Bacon,	1.62
American Academy of Political and Social Science,	27.00
American Antiquarian Society,	5.00
American Journal of Philology,	3.00
Anthony, E., & Sons, Incorp.,	6.00
Appleton, D., & Co.,	115.00
Austin, J. O.	10.00
Bancroft-Whitney Co.,	20.00
Bettencourt, M. M.	20.00

Briggs, G. L.	2.40
Briggs, Z. M.	2.50
Cadby, J. W.	9.85
Cambridge Etomological Club,	5.00
Castor, T. H., & Co.,	98.06
Clapin, Sylva,	4.00
Clarke, W. B., & Co.,	10.00
Clifford, W., and Adams, G. E., assignees,	1.50
Dedham Historical Register,	2.00
Dews, E.	7.40
Egypt Exploration Fund,	10.00
Ellis, G. H.	2.00
Essex Institute,	4.50
Evening Journal Co.,	5.00
Foster, L. S.	3.00
Francis, D. G.	5.53
Gifford, H. A., Jr.,	9.00
Guild, W. H., & Co.,	457.85
Harper, F. P.	2.25
Harvard Graduates' Magazine,	1.00
Harvard Monthly,	2.00
Hawes, A. Clifford,	2.00
Houghton, Mifflin & Co.,	28.50
Hutchinson, H. S., & Co.,	823.18
Johns Hopkins Press,	7.50
Little, Brown & Co.,	334.57
Littlefield, G. E.	111.40
Lockwood, Howard & Co.,	12.00
Lowdermilk, W. H., & Co.,	5.00
McCook, H. C.	5.00
McDonough, J.	5.00
Massachusetts Historical Society,	6.00
Meeker, F. J.	5.18
Mercury Publishing Co.,	6.00
Miller, S. E.	5.00
Munsell's Sons, Joel,	9.00
Nash, E. W.	8.55
New England Magazine,	3.00
New Haven Colony Historical Society,	5.00
O'Shea, P.	3.75
Pedagogical Seminary, L. N. Wilson,	14.00
Peet, S. D.	8.00
Phillips, G. R.	3.00
Poor, H. V. & H. W.	7.50
Publishers' Weekly, R. R. Bowker,	7.20

Rider, S. S., agent,	10.50	
Sampson, Murdock & Co.,	24.50	
Schulte Publishing Co.,	6.00	
Skinner, J.	2.22	
Social Economist,	1.50	
Soldiers' and Sailors' Historical Society of Rhode Island,	4.00	
Swasey, C. A. G.,	15.00	
Taber, R. W.	654.96	
Taylor, T. J.	4.50	
Ticknor & Co.,	5.00	
Tribune Association, New York,	9.15	
United States Patent Office,	31.20	
University of Pennsylvania Press,	2.00	
Waldron, C. D.	1.00	
Werner, E. A.	11.00	\$3,065.32

GEORGE HOWLAND, JR., FUND.

1894.

Jan. 1. Unexpended balance of income,	\$312.53	
One year's interest,	96.00	\$408.53

CHARLES W. MORGAN FUND.

1894.

Jan. 1. Unexpended balance of income,	\$148.84	
One year's interest,	60.00	

\$208.84

D. Appleton & Co.,	\$15.00	
T. H. Castor & Co.,	1.32	
H. S. Hutchinson & Co.,	23.13	
Little, Brown & Co.,	24.99	
George E. Littlefield,	5.85	
L. H. Richards & Co.,	15.00	
R. W. Taber,	29.01	114.30
		\$94.54

OLIVER CROCKER FUND.

1894.

Jan. 1. Unexpended balance of income,	\$247.90	
One year's interest,	60.00	

\$307.90

Academy of Natural Sciences, S. R. Roberts, treasurer,	20.00	\$287.90
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GEORGE O. CROCKER FUND.

1894.

Jan. 1. Unexpended balance of income,	\$775.29		
One year's interest,	400.00		
			\$1,175.29
Anthony, E., & Sons, Incorp.,	\$11.50		
Briggs & Lawrence,	46.50		
Cook, S. H., & Co.,	187.50		
Evening Journal Co.,	4.00		
Grinnell, L., & Co.,	187.50		
Guild, William H., & Co.,	28.75		
Hathaway, J. H., City Treasurer,			
periodicals,	142.25		
Mason, J. W., & Co.,	30.00		
Mercury Publishing Co.,	6.00		
Taber Art Co.,	10.00		
Transfer to Sylvia Ann Howland fund,			
periodicals,	66.31	720.31	\$454.98

JAMES B. CONGDON FUND.

1894.

Jan. 1. Unexpended balance of income,	\$470.37		
One year's interest,	30.00		
			\$500.37
Castor, T. H., & Co.,	\$100.80		
Little, Brown & Co.,	12.50	113.30	\$387.07

CHARLES L. WOOD FUND.

1894.

Jan. 1. Unexpended balance of income,	\$80.00		
One year's interest,	80.00		\$160.00

DOG FUND.*

1894.

Jan. Received from County Treasurer,	\$1,337.59		
Almy & Milne,	\$6.00		
Ames, Y. W.	86.00		
Anthony, E., & Sons, Incorp.,	104.84		
Briggs, G. L.	50.10		
Briggs & Lawrence,	28.50		

* NOTE. — The balance standing to the credit of the dog fund Jan. 1, 1894, according to the accounts of the trustees, was a nominal one. The amount was entirely used during 1893 by direction of the finance committee of the City Council without the consent of the library trustees.

Brightman, F. S.	10.29		
Broadbent, S. S.	28.00		
Charleston News & Courier Co.,	10.00		
Chicago Inter-Ocean,	6.00		
Clifford, W., and Adams, G. E., assignees,	6.75		
D'Wolf, Anna M.	134.00		
Dews, E.	2.75		
Ellis, L. B.	7.70		
Evening Journal Co.,	74.12		
Farwell, Florence E.	157.75		
Goss, F. B. & F. P.	2.00		
Hutchinson, H. S., & Co.,	44.55		
Library Bureau,	108.61		
McAuliffe, D. J.	42.00		
Mercury Publishing Co.,	15.89		
Merrick, Emma J.	193.50		
New York Commercial Advertiser,	6.00		
New York Herald,	8.00		
New York Times,	14.60		
Nicholson & Co.,	12.00		
Pope, A. P.	10.63		
Providence Journal Co ,	8.00		
San Francisco Chronicle,	13.40		
Sherman, R. A., & Son,	29.00		
Taunton Daily Gazette,	6.00		
Tribune Association,	7.35		
Yeager, C. L.	103.00	\$1,337.33	\$.26

CATALOGUE ACCOUNT.

1894.

Jan. 1. Unexpended balance of special appropriation of \$1000, made in 1893,	\$576.33	
Salary of Clara C. Russell,	480.00	\$96.33

Total unexpended balance in the control of the Board of Trustees:

1895.

Jan. 1. Sylvia Ann Howland fund,	\$1,500.00	
George Howland, Jr., fund,	408.53	
Charles W. Morgan fund,	94.54	
Oliver Crocker fund,	287.90	
George O. Crocker fund,	454.98	
James B. Congdon fund,	387.07	
Charles L. Wood fund,	160.00	
Dog fund,	.26	
Catalogue account,	96.33	\$3,389.61

WILLIAM L. R. GIFFORD, Clerk.

GIFTS, 1894.

	Volumes.	Pamphlets.
Adams' Nervine Asylum, Boston,	1	
Aguilar Free Library Society, New York, N. Y.,	1	
Almy & Milne, Fall River,	1	
American Humanitarian League, Providence, R. I.,	1	
American Journal of Photography, Publishers of,	1	
American Philosophical Society, Philadelphia, Pa.,	1	
American Swedenborg Printing and Publishing Society, 20 Cooper Union, New York, N. Y.,	12	
American Unitarian Association, Boston,	1	
Amherst College, Amherst,		7
Apprentices' Library Company, Philadelphia, Pa.,		1
Argentine Commission, World's Columbian Expositi- tion,	2	
Astor Library, New York, N. Y.,		1
Balch, Samuel W., Yonkers, N. Y.,		1
Bancroft-Whitney Co., San Francisco, Cal., . . .		1
Bettencourt, M. M.	6	
Boston Public Library		1
Bradlee, Caleb D., Boston,		3
Brookline Public Library,		2
Brooklyn Library, Brooklyn, N. Y.,		2
Brown University, Providence, R. I.,	1	
Brownell, T. Frank, 120 Broadway, New York, N. Y.,		8
Buckminster, Joseph,	8	
Buffalo Historical Society, Buffalo, N. Y.	1	
Buffalo Library, Buffalo, N. Y.,		1
Butler Hospital for the Insane, Providence, R. I.,		1
Chicago Public Library, Chicago, Ill.,		1
Christian Science Publishing Society, Boston, . .	1	
Cincinnati Public Library,		6
Clifford, John H., Heirs of, Painting.		
Cobden Club, London, Eng.,		1
Coggeshall, R. C. P.	1	

	Volumes.	Pamphlets.
College of New Jersey, Princeton, N. J.,	1	
Commissioners of the State Reservation at Niagara, 214 Broadway, New York, N. Y., . .		1
Connecticut Historical Society, Hartford, Conn.,		1
Davenport, Cyrus B., Brooklyn, N. Y.,		2
Dayton Public Library, Dayton, Ohio,		1
Denham, <i>Mrs.</i> Mary E.	2	
Detroit Public Library, Detroit, Mich.,		1
Dexter, <i>Mrs.</i> John G., Rochester,	1	
Egypt Exploration Fund,		2
Ellis, Leonard B.		1
Enoch Pratt Free Library, Baltimore, Md.,		1
Ewing, Thomas, 41 Wall st., New York, N. Y., . .		1
Fall River Public Library,		1
Fletcher Free Library, Burlington, Vt.,		1
Foster, L. S., 35 Pine st., New York, N. Y., . .		1
Friends' Free Library, Germantown, Pa.,		1
Frothingham, Paul R.		1
General Society of Mechanics and Tradesmen, 18 East 16th st., New York, N. Y.,		2
Gibbes, Emily O.	1	
Gifford, W. L. R.	3	5
Grand Rapids Board of Trade, Grand Rapids, Mich.,		2
Green, <i>Dr.</i> Samuel A., Boston,		24
Hartford Public Library, Hartford, Conn.,		2
Harvard University, Cambridge,	1	3
Helena Public Library, Helena, Mon.,		4
Hibbard, E. A., 111 Broadway, New York, N. Y., . .		1
Holland Society of New York, Box 1401, New York, N. Y.,	1	
Hopedale Public Library,		1
Howland, M. Morris,	7	
Indian Rights Association, 1305 Arch st., Philadelphia, Pa.,		1
Ingraham, Robert C.	2	
Jersey City Free Public Library,		12
Johns Hopkins University, Baltimore, Md.,		2
Lancaster Library, Lancaster,		1
Lawrence Public Library, Lawrence,		5
Lawton, William C., 3737 Locust st., Philadelphia, Pa.,	1	1
Lee, Leslie A., Brunswick, Me.,		3
Leslie, E. N., Skaneateles, N. Y.,	1	
Le Soudier, H., Paris, France,		1

	Volumes.	Pamphlets.
Lenox Library, New York, N. Y.,		1
Library Company of Philadelphia,		2
Lynn Public Library,		1
Maimonides Library, New York, N. Y.,		1
Maine Genealogical Society, Portland, Me.,	1	1
Marion Library Association, Marion,		1
Massachusetts, Commonwealth of,	26	1
Massachusetts]Board of Gas and Electric Light Commissioners, Boston,		1
Massachusetts Civil Service Commissioners, Bos- ton.		1
Mathews, Albert, New York, N. Y.,	2	
Menezes, Joaquin de,	2	
Mercantile Library Association, New York, N. Y.,		1
Mercantile Library Association, San Francisco, Cal.,		1
Mercantile Library Association, St. Louis, Mo.,		1
Mercantile Library Company of Philadelphia, Pa.,		5
Merrill, Edward B., New York, N. Y.,	1	
Millicent Library, Fairhaven,		2
Milwaukee Public Library, Milwaukee, Wis.,		1
Minneapolis Public Library, Minneapolis, Minn.,		4
Murray, Ruth S.	1	
National Divorce Reform League		2
New Bedford, City of,	68	2
New Bedford Board of Assessors,	1	
New England Mutual Life Insurance Co., Boston,	1	
New Jersey State Library, Trenton, N. J.,	2	
Newark Free Public Library, Newark, N. J.,		1
Newton Free Library, Newton,		1
Peabody Institute, Peabody,		1
Peoria Public Library, Peoria, Ill.,		1
Perkins Institution for the Blind, Boston,		1
Philadelphia Free Library, Philadelphia, Pa.,		1
Potter, Alfred C., Cambridge,	1	
Providence Public Library, Providence, R. I.,		1
Providence Record Commissioners, Providence, R. I.,	4	1
Redwood Library, Newport, R. I.,		1
Rhode Island World's Fair Commissioners,	1	
Rodman, Edmund,		4
Rodman, Thomas R.	23	
Romero, Matias,		1
Rotch, <i>Mrs.</i> William J.	14	
Royal Society of Canada, Ottawa, Canada,	1	

	Volumes.	Pamphlets.
Salem Public Library,		2
San Francisco Free Public Library,		1
Sayer, William L.		9
Smithsonian Institution, Washington, D. C., . . .	4	8
Society of California Pioneers, San Francisco, Cal.,		1
Springfield City Library,		12
Stevens, D. C., Fairhaven,		1
Taber, C. A. M., Wakefield,	1	
Taber, Mrs. Charles S., Fairhaven,	1	
Tabor Academy, Marion,		1
Taunton Public Library,		1
Thompson, Louisa R.	6	
Trustees of Public Reservations, Boston,		1
Tucker, George F.	1	7
United Societies of Shakers, East Canterbury, N. H.,	1	
United States :		
— Agricultural Department,	2	25
— Bureau of Education,	6	6
— Coast and Geodetic Survey,	2	
— Interior Department,	136	6
— Interstate Commerce Commission	1	
— Labor Bureau,	3	
— Navy Department,		1
— State Department,		4
— Treasury Department,	1	
— War Department,	13	3
University of Chicago, Chicago, Ill.,	1	
University of Nashville, Nashville, Tenn., . . .		1
University of Vermont, Burlington, Vt.,		1
Waterhouse, S., St. Louis, Mo.,		1
Watertown Free Public Library,		1
Webster, Prentiss, Lowell,	1	
West, Edward W., 1092 Pacific st., Brooklyn, N. Y.,		1
Willey, Henry,	2	
Winchester Home Corporation for Aged Women, Boston,		1
Woburn Public Library,		1
Worcester Free Public Library,		1
Yale University, New Haven, Conn.,		2
Zeballos, E. S., Washington, D. C.,		3

IN BOARD OF ALDERMEN,

January 24, 1895.

Received and ordered printed in the City Documents,
and sent down for concurrence.

D. B. LEONARD,

City Clerk.

IN COMMON COUNCIL,

January 24, 1895.

Concurred.

WM. A. MACKIE,

Clerk.

1894—CITY DOCUMENT No. 5.

ANNUAL REPORT
OF THE
CHIEF ENGINEER
OF THE
FIRE DEPARTMENT
OF THE CITY OF NEW BEDFORD,



FOR THE YEAR ENDING DECEMBER 31, 1894.

FREDERICK MACY, Chief Engineer.

NEW BEDFORD:
E. ANTHONY & SONS, Incorp., CITY PRINTERS,
1895.

COMMITTEE OF THE CITY COUNCIL
ON
FIRE DEPARTMENT,
1894.

ALDERMEN,

WILLIAM H. RANKIN,

Residence, 27 Bonney Street.

ISAAC L. ASHLEY,

Residence, 43 Wing Street.

COUNCILMEN,

JAMES McFARLIN,

Residence, 72 Spruce Street.

ROBERT S. LAWTON,

Residence, 65 Maxfield Street.

FREDERICK S. BRIGHTMAN,

Residence, 71 Fourth Street.

ENGINEER'S DEPARTMENT.

Chief Engineer,
FREDERICK MACY,
Residence, 234 Acushnet Avenue.

First Assistant Engineer,
LORING T. PARLOW,
Residence, 5 North Street.

Second Assistant Engineer,
JAMES J. DONAGHY,
Residence, 83 Washington Street.

Third Assistant Engineer,
SAMEL C. FRANCE,
Residence, 152 Mt. Pleasant Street.

Fourth Assistant Engineer,
GEORGE M. CRAPO,
Residence, Corner Elm and North Second Streets.

Clerk of Board of Engineers,
LUTHER G. HEWINS, JR.,
Residence, 762 County Street.

Master Mechanic,
DANIEL D. BRIGGS,
Residence, 43 Bedford Street.

Department Engineer,
GEORGE H. PARKER,
Residence, Parker Street.

Department Driver,
FREDERICK E. MOSHER,
Residence, French Avenue.

Department Lineman,
WILLIAM CURTISS,
Residence, 132 Kempton Street.

REPORT.

HEADQUARTERS FIRE DEPARTMENT,
CITY HALL, NEW BEDFORD,
December 31, 1894.

GENTLEMEN:—In compliance with the requirements of the city ordinance governing the Fire Department of the city, I herewith submit to you my eighteenth annual Report of the condition and work performed by this department for the year 1894, together with a list of members, with their rank, number of badge, age, residence, and occupation; location of hydrants and fire alarm boxes; list of key holders; a statement of receipts and expenses; fires and alarms; losses and insurance, as near as could be ascertained; and such suggestions as I think will be necessary for the good of the department.

The department is in very good condition and the force under good discipline, and although we have had a larger number of alarms than for many years, the loss has been smaller than for any year since 1890, we having had no disastrous fires. The members of the force have been prompt in responding to alarms, and by their quick work have prevented what in many cases threatened to be serious fires.

The members of the department have been especially fortunate during the year as regards accidents, and the only case I have to report is that of Martin Blanchard, Jr., engineer of engine No. 5, who broke his knee cap while responding to an alarm from box 23 on April 26, and was off duty one hundred and thirteen days.

DEATH.

Eugene R. Leverett, a hoseman on engine No. 2, died June 24 and was buried on the 28th, his funeral being attended by a detail from the several companies. Mr. Leverett was a very efficient member of the department for many years and is sadly missed by the members of his company, who held him in the highest esteem.

FORCE OF THE DEPARTMENT.

The force of the department consists of one chief, four assistants and clerk, thirty-two men permanently employed and one hundred and ninety call men, making a total of two hundred and twenty-eight men.

APPARATUS.

The apparatus consists of nine steam fire engines, (seven in commission and two in reserve,) one hand engine at the Head-of-the-River, one two and one four-wheeled hose reels, seven hose wagons, two Hayes aerial ladder trucks, one Ryan truck, nine exercise and coal wagons, and one telegraph wagon.

There has been built at the repair shop one hose wagon for No. 6 to carry one thousand feet of hose, and one for No. 4 to carry sixteen hundred feet. There have been purchased during the year two new La France engines, which gives us seven practically new engines in commission. The two old ones which we have in reserve are old and need so much laid out on them to make them serviceable that I think it would be economy to dispose of them and purchase one new one, for when the occasion arises where we need a reserve engine we want the best there is to be had. In my annual reports for two years I have called the attention of the City Government to the urgent need of placing a Hayes truck at the north end of the city

in the house now occupied by ladder 2 and placing ladder 2 in reserve. When this house was built and the old truck placed in it it seemed to answer every purpose, but the city has grown so fast and so many large mills and high tenement blocks have been built that we have outgrown the present equipment, and I would again call your attention to the necessity of a truck with ladders long enough to save lives as well as fight fires in those tall buildings.

CHEMICAL ENGINES.

Much has been said and written the last few years in regard to chemical engines, and it has been even hinted that I was opposed to them because I did not advocate the purchase of one before this year. Nothing could be further from the truth, for I am a firm believer in them and always have been, as the record of fires extinguished with our hand extinguishers for the past eighteen years will show.

It has been my aim to have this department equipped with a sufficient number of steam fire engines to take care of the city in cases of emergencies, and then try and get a few chemical engines to run to all alarms in conjunction with the steamers, and I would recommend purchasing a combination chemical and hose wagon the coming year, and as soon as convenient and the financial condition of the city will allow, place one at the north end, one at the south end, and one in the central part of the city. When this is done and the contemplated addition to our water supply finished, I think our city will be as well protected as any in the country.

HOUSES.

There are eight brick and one frame engine houses, all in very good condition, and I know of no great outlay required on them the coming year. The cellars and drains

of houses No. 1 and 2 have been lowered, and are now as good as any in the department. The new house corner of Acushnet avenue and Davis street has been completed and equipped with all the modern appliances.

HORSES.

There are thirty-five horses belonging to the department. Most of them are in good condition, but a few of them are getting old and unfit for the service and will have to be replaced.

HARNESSES.

There are thirteen sets of double and eleven single harnesses, all in good condition.

HOSE.

There are fifteen thousand feet of two and a half inch cotton rubber lined hose in the department, most of which is in good condition, but it will be necessary to replace one or two thousand feet the coming year.

WATER SUPPLY.

The number of hydrants January 1, 1894, was five hundred and eighty-five (585). Added during the year, twenty-two (22), making a total of six hundred and seven (607). We have also thirty-one (31) reservoirs.

FIRE ALARM.

The fire alarm has worked very well during the year, taking everything into consideration. In the months of February and April our whole system was demoralized by blizzards, which blew down so many poles and mixed electric, telephone and fire alarm wires up so that for a few days all the systems were useless, and as there is

some talk of putting the electric and telephone wires under ground in the centre of the city, I would suggest that when it is done a separate conduit be left for the fire and police alarm wires, and by doing some of the work each year we shall soon have the wires where they belong and not likely to be rendered useless just at the time when we need them the most.

There has been considerable work done on the wires during the year, and they are in as good condition as it is possible to have them under the present condition of things. There have been added three fire alarm boxes during the year as follows: Box 42, corner Allen and Page streets; box 116, corner of Hillman and Ash streets; and box 581 at City Almshouse. We have now a total of eighty (80) boxes, twenty-five (25) of which are private; forty (40) miles of wire; twelve (12) bells and strikers; nine (9) fifteen-inch engine house gongs; seven (7) seven-inch engineers' gongs, and eight (8) small tappers operated by a battery of two hundred and thirty-four (234) cups.

PROTECTIVE DEPARTMENT.

The members of this department have been prompt in responding to all alarms, and under the superintendence of its president, Mr. Charles S. Kelley, and his board of directors have rendered efficient service.

I would recommend that an additional supply of rubber covers be furnished them the coming year.

RECEIPTS AND EXPENDITURES.

Annual appropriation for 1894,	\$38,000.00
Annual appropriation for 1894,	14,000.00
Transfers from unappropriated funds,	835.00
Transfers from police department,	780.00
Special appropriation for No. 8, furnishings,	3,500.00

Special appropriation for new steam fire engine company No. 5,	3,500.00
Special appropriation for new steam fire engine company No. 8,	3,500.00
Transfers to balance,	4,489.35
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	\$68,604.35
Expenditures for 1894,	\$68,604.35

CONCLUSION.

To His Honor the Mayor and gentlemen of the City Council, for the interest taken in this department; to the Board of Engineers, for their hearty support, and to the officers and members of the fire and police departments for the faithful manner in which they have performed all their duties, I return most sincere thanks.

FREDERICK MACY,
Chief of Fire Department

STATEMENT OF EXPENDITURES.

Salaries,	\$2,250.00
Pay-rolls and Protecting Society,	40,880.34
Shoeing and blacksmithing,	615.48
Hay and straw,	2,599.04
Grain,	1,521.79
House furnishings and supplies,	2,347.61
Lights,	852.86
Wood and coal,	1,045.62
Rents,	153.75
Telephones,	415.00
Fire alarm supplies,	679.69
Engine and wagon repairs,	1,682.77
Repair of buildings,	1,824.60
Labor,	242.50
Horse hire,	1,205.09
Printing and incidentals,	787.80
Harnesses and repairs,	450.41
Horses,	950.00
Hose,	1,100.00
New steam fire engine No. 5,	3,500.00
New steam fire engine No. 8,	3,500.00
	<hr/>
	\$68,604.35

ONWARD STEAM FIRE ENGINE COMPANY

No. 1.

House on Purchase street, foot of Franklin street. Engine built by Amoskeag Manufacturing Co., Manchester, N. H.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 6,950 pounds; put into service August 26, 1869. Present company organized December 30, 1871.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPATI'N.
Apr. 29, 1873.	8	Allen W. Tinkham	Captain	41	5 Smith st.	Carpenter
June 15, 1876.	17	George A. Tripp	1st Lieut.	41	63 Foster st.	Shoemaker
May 7, 1883.	11	Fred W. Brightman	2d Lieut.	36	178 Kempton st.	Paint mfr.
Jan. 28, 1873.	7	Julian A. Sweet	Clerk	46	134 State st.	Roll coverer
Apr. 24, 1882.	6	Edward M. Durfee	Hoseman	50	488 Purchase st.	Carriage maker
May 31, 1880.	14	Charles A. Wilson	"	37	95 Walden st.	Carpenter
Dec. 29, 1884.	19	John Whitehead	"	50	580 Purchase st.	Frame maker
July 28, 1890.	16	Charles H. Thomas	"	37	87 Locust st.	Roll coverer
June 30, 1892.	9	Robert Wolfenden	"	26	401 Pleasant st.	Barber
May 5, 1890.	15	Oscar S. Hammond	"	25	70 North st.	Carpenter
Apr. 24, 1893.	10	James L. Haskins	"	28	643 Purchase st.	Teamer
July 31, 1893.	18	John Wolfenden	"	31	400 Pleasant st.	Jeweler
Apr. 29, 1889.	12	Albert D. Milliken	Substitute	24	165 Middle st.	Cotton worker
July 30, 1894.	13	Herbert Gifford	"	22	Pleasant st.	Teamer
June 9, 1894.	21	Edward F. Cowen	Driver	45	10 Campbell st.	Hostler
Dec. 1, 1894.	23	William A. Young	"	34	542 Purchase st.	Hostler
June 9, 1894.	20	John H. Backus	Engineer	42	541 Purchase st.	Engineer
Dec. 1, 1894.	22	George Backus	Stoker	21	541 Purchase st.	Carriage smith

PROGRESS STEAM FIRE ENGINE COMPANY

No. 2.

House, corner Purchase street and Mechanics lane. Engine built by the Manchester Locomotive Works, Manchester, N. H.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 7,000 pounds; put into commission November 6, 1884. Company organized October 27, 1860.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
May 1, 1862.	25	John Downey	Captain	57	118 No. Second st.	Teamer
Jan. 12, 1892.	28	Henry A. Sherman	1st Lieut.	38	63 Kempton st.	Carriage smith
Dec. 1, 1890.	24	James L. Crowley	2d Lieut.	25	Elm & Water sts.	Plumber
Aug. 7, 1874.	27	James D. Allen	Clerk	58	202 Purchase st.	Clerk
Jan. 1, 1872.	29	James G. Harding	Hoseman	59	62 State st	Carpenter
Sept. 7, 1874.	32	Charles F. Dean	"	37	59 Elm st	Painter
May 5, 1884.	36	Samuel W. Mitchell	"	36	155 Purchase st.	Clerk
July 3, 1876.	34	Moses Dean	"	40	202 Purchase st.	Blacksmith
May 5, 1884.	35	William K. Wagner	"	37	208 Pleasant st	Telephone manager
Jan. 21, 1886.	37	E. K. Pierce	"	32	19 Mill st.	Shoemaker
Oct. 6, 1890.	33	A. J. Aiken	"	32	116 No. Second st.	Painter
Jan. 12, 1892.	30	George W. Haskins	"	26	236 Kempton st.	Hostler
Sept. 1, 1892.	129	E. E. Spooner	Substitute	20	Brownell's B'k	Clerk
July 2, 1894.	26	John H. Dollard	"	40		Stone cutter
Aug. 23, 1892.	38	Benjamin Groves	Engineer	39	Engine house	Engineer
June 25, 1893.	39	Charles Allen	Driver	38	"	Hostler
July 16, 1876.	41	M. Conway	R'l Driver	56	"	Hostler
Aug. 20, 1874.	40	Lemuel W. Hayes	Stoker	51	23 North st.	Wood turner

CORNELIUS HOWLAND STEAM FIRE ENGINE COMPANY No. 4.

House, corner Sixth and Bedford streets. Engine built by the Manchester Locomotive Works, Manchester, N. H.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 7,000 pounds; put into service May 20, 1884. Company organized February 1, 1867.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
May 29, 1868.	42	William A. Gibbs	Captain	44	181 Fourth st.	Cabinet maker
July 26, 1886.	43	Wm. E. Watson, Jr.	1st Lieut.	31	37 Fifth st.	Clerk
Sept. 26, 1892.	44	John P. Kennedy	2d Lieut.	26	100 Bedford st.	Clerk
Oct. 26, 1891.	48	William N. Jewett	Clerk	28	183 Fourth st.	Clerk
Jan. 29, 1867.	46	James M. Tripp	Hoseman	59	211 Acushnet av.	Carpenter
Sept. 29, 1872.	50	Charles S. Wing	"	40	279 Acushnet av.	Clerk
Dec. 6, 1877.	47	Charles H. Card	"	46	73 Forest st.	Lineman
Nov. 10, 1879.	53	Benj. F. Hinckley	"	37	23 Madison st.	Printer
Feb. 16, 1888.	49	Frank C. Jennings	"	29	19 Allen st.	Oil dealer
Aug. 28, 1882.	52	Samuel Watson, 2d	"	36	173 Fourth st.	Clerk
Sept. 1, 1892.	51	William C. Hiscox,	"	31	45 Bedford st.	Machinist
May 28, 1894.	45	Louis A. Vierick	"	26	102 Fourth st.	Machinist
Jan. 5, 1894.	55	Henry Larocque	Substitute	23	86 Fifth st.	Machinist
July 2, 1894.	54	Harry B. Jennings	"	21	19 Allen st.	Clerk
Apr. 29, 1878.	56	Alonzo V. Jason	Engineer	40	Engine house	Engineer
Mar. 25, 1889.	58	Leander Reed	Stoker	45	3 Bay st.	Machinist
Jan. 29, 1867.	57	George H. W. Tripp	Driver	58	Engine house	Hostler
Apr. 1, 1889.	59	Wm. C. Kennedy	R'l Driver	27	"	Hostler

ZACHARIAH HILLMAN STEAM FIRE ENGINE COMPANY No. 5.

House, corner County and Hillman streets. Engine built by La France Steam Fire Engine Co., Elmira, N. Y.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 7,300 pounds; put into service March 10, 1894. Company organized December 13, 1873.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Dec. 31, 1888.	70	Thomas H. Forbes	Captain	33	121 Cedar st.	Shoemaker
Sept. 30, 1889.	71	Obed S. Cowing	1st Lieut.	31	278 Mill st.	Carpet upholsterer
Dec. 28, 1891.	73	Ernest L. Soule	2d Lieut.	32	254 Maxfield st.	Wood worker
Oct. 1, 1885.	63	Joseph C. Forbes	Clerk	28	201 Cedar st.	Shoemaker
Dec. 13, 1873.	62	Isaiah H. Wilcox	Hoseman	59	506 Acushnet av.	Painter
May 1, 1876.	64	George H. Chadwick	"	60	354 Kempton st.	Painter
Sept. 30, 1890.	68	Thomas N. Myers	"	32	205 Summer st.	Frame maker
Feb. 9, 1891.	60	Geo. E. Macomber	"	43	218 North st.	Shoemaker
June 7, 1888.	72	Henry K. Jones	"	26	329 Cottage st.	Machinist
Feb. 1, 1893.	61	Frank B. Chadwick	"	22	354 Kempton st.	Frame maker
June 26, 1893.	69	John F. Gifford	"	38	383 Kempton st.	Foreman Street Dept.
July 23, 1894.	67	Arthur R. Caswell	"	30	West Mill st.	Shoemaker
Oct. 10, 1894.	65	William L. Davis	Substitute	32	106 Chestnut st.	Painter
Dec. 31, 1894.	66	Charles H. Bowman	"	29	150 No. Second st.	Laborer
Dec. 13, 1873.	74	M. Blanchard, Jr.	Engineer	50	Engine house	Engineer
Jan. 7, 1876.	75	Benj. F. King, Jr.	Driver	53	"	Hostler
Jan. 28, 1883.	77	Martin S. Nelson	R'l Driver	37	"	Hostler
May 1, 1882.	76	Charles W. Jones	Stoker	40	329 Cottage st.	Wood worker

FREDERICK MACY STEAM FIRE ENGINE COMPANY No. 6.

House on Fourth street, head of Potomska street. Engine built by Manchester Locomotive Works, Manchester, N. H.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 7,100 pounds; put into service November 1, 1882. Company organized October 31, 1882.

DATE OF JOINING.	No. of Badg.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Oct. 26, 1886.	130	Edward W. O'Niell	Captain	33	30 Thompson st.	Glass cutter
Oct. 31, 1882.	135	Frederick S. Nelson	1st Lieut.	28	192 Washing'n st.	Mason
Feb. 3, 1890.	131	Charles E. Allen	2d Lieut.	26	Contemplated Hall st.	Painter
Oct. 31, 1882.	122	Herbert B. Gardner	Clerk	47	132 Washing'n st.	Compositor
Oct. 31, 1882.	132	Jason L. Ballou	Hoseman	49	37 Crapo st.	Carpenter
Oct. 31, 1882.	127	Thomas Wood	"	48	34 Bonney st.	Photo- grapher
Oct. 31, 1882.	125	Marshal S. Greene	"	40	233 Rivet st.	Mason
Mar. 27, 1883.	128	Joseph Jackson	"	39	59 Allen st.	Barber
Oct. 31, 1882.	133	Charles K. Wood	"	43	87 Acushnet av.	Passepart't maker
Nov. 3, 1890.	124	James T. Galligan	"	28	73 Mill st.	Clerk
June 30, 1891.	123	John F. Rogers	"	27	97 Acushnet av.	Undertaker
May 31, 1892.	138	Michael Stapleton	"	35	Cor. Cove and So. Second sts.	Salesman
Dec. 15, 1892.	121	Charles E. Greene	Substitute	21	204 County st.	Britannia worker
June 26, 1894	126	James Rock, Jr.	"	22	743 So. Water st.	Clerk
Oct. 31, 1882.	137	Charles G. Taber	Engineer	46	Engine house	Engineer
Nov. 24, 1885.	142	Henry M. Mosher	Stoker	46	205 County st.	Press worker
Oct. 31, 1882.	134	Frank A. C. Greene	Driver	29	Engine house.	Hostler
Oct. 31, 1882.	136	N. Herbert Greene	R'l Driver	38	"	Hostler

STEAM FIRE ENGINE COMPANY

No. 7.

House on Durfee street. Engine built by the Manchester Locomotive Works, Manchester, N. H.; capacity, 500 gallons per minute; weight of engine as drawn to fires, 7,000 pounds; put into service September 1, 1890. Company organized September 1, 1890.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Sept. 1, 1890.	197	S. C. Lowe	Captain.	37	Sycamore st.	Merchant
"	204	Edward H. Booth	1st Lieut.	44	35 Durfee st.	Car Inspector
"	206	J. H. Ryan	2d Lieut.	36	565 Cottage st.	Tinsmith
"	205	M. C. Dahill	Clerk	35	70 Linden st.	Shoemaker
"	198	Thomas Mack	Hoseman	32	248 Cedar st.	Clerk
"	208	James McDonnell	"	26	130 Austin st.	Merchant
"	209	Charles A. Galligan	"	27	567 Cottage st.	Merchant
"	207	J. D. Manseau	"	29	30 Durfee st.	Clerk
"	203	George A. Bosworth	"	31	10 Richmond st.	Contractor
Nov. 11, 1890.	211	C. L. Dunham	"	28	77 Willis st.	Merchant
Jan. 3, 1893.	195	J. N. O'Brien	"	32	565 Cottage st.	Merchant
Sept. 1, 1890.	212	James M. Whittaker	"	30	336 Cedar st.	Clerk
June 11, 1894.	210	Thomas Lowe	Substitute	51	Shawmut av.	Plumber
Dec. 3, 1894	196	William Simister	"	28	42 Durfee st.	Clerk
Sept. 1, 1890.	199	James R. Goddard	Engineer	36	Cottage st.	Engineer
"	202	Andrew Tripp	Stoker	43	1 Durfee st.	Shoemaker
"	200	William H. King	Driver	30	4 Mt. Pleasant st.	Hostler
"	201	Ed. A. Coggeshall	R'l Driver	24	1 Durfee st.	Hostler

STEAM FIRE ENGINE COMPANY

No. 8.

House, Acushnet avenue and Davis street. Engine built by La France Steam Fire Engine Co., Elmira, N. Y.; capacity, 500 gallons per minute; put into service December 1, 1894. Company organized December 1, 1894.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Dec. 1, 1894.	241	James Slater	Captain	43	678 Purchase st.	Merchant
"	242	David C. McWhinnie	1st Lieut.	30	Ashland st.	Mechanic
"	243	John S. Pye	2d Lieut.	30	942 Acushnet av.	Clerk
"	244	Michael McDonnell	Clerk	28	192 Austin st.	Merchant
"	245	Thomas S. Riley	Hoseman	25	98 Austin st.	Clerk
"	246	Robert McWhinnie	"	36	Church st.	Mill operative
"	247	Frank H. Keil	"	31	357 Coffin av.	Clerk
"	250	Antone M. Lemos	"	30	Davis st.	Mechanic
"	248	Nicholas Whalon	"	28	20 Belleville av.	Clerk
"	249	Fred Webster	"	23	1110 Acushnet av.	Burnisher
"	251	Daniel S. Considine	"	32	Davis st.	Merchant
"	252	Timothy E. Lowney	"	30	847 Purchase st.	Carpenter
"	253	Edward L. Hughes	Substitute	27	Cor. Coffin' and Acushnet avs.	Clerk
"	254	A. J. Cote	"	21	229 Coggeshall st.	Painter
"	237	William R. Moore	Engineer	31	Engine house	Engineer
"	240	John Watkinson	Stoker	30	Pleasant st., near Weld	Clerk
"	238	George H. Cook	Driver	33	Engine house	Hostler
"	239	Squire A. Gifford	R'l Driver	36	Engine house	Hostler

HANCOCK ENGINE COMPANY No. 9.

House located at Acushnet. Engine built by John Agnew, of Philadelphia, in 1843. Engine removed to Acushnet January 18, 1861, and a company was organized to man her at that time. Company re-organized December 14, 1878.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
May 7, 1883.	147	F. P. Washburn	Captain	51	No. Acushnet av.	Carpenter
Dec. 14, 1878.	160	Herbert M. Spooner	1st Lieut.	35	Main st.	Box maker
Sept. 3, 1883.	151	John G. Whalon	2d Lieut.	33	Acushnet av.	Box maker
Dec. 6, 1886.	145	John F. Parker	Clerk	25	Main st.	Painter
May 1, 1882.	159	Israel H. Peckham	Suction hoseman	52	Tarkiln Hill road	Blacksmith
Dec. 14, 1878.	158	Lem'l A. Washburn	Suction hoseman	56	No. Acushnet av.	Teamer
"	153	William T. Gifford	Leading hoseman	48	Mill road	Farmer
May 3, 1886.	155	George H. Gifford	Leading hoseman	23	No. Acushnet av.	Grocer
Dec. 14, 1878.	154	Joseph W. Spooner	Leading hoseman	42	"	Teamer
"	166	Eli W. Reed	Leading hoseman	56	Tarkiln Hill road	Teamer
Feb. 4, 1889.	161	William P. Reed	Steward	41	"	Teamer
Dec. 14, 1878.	146	John A. Russell	Brakeman	44	No. Acushnet av.	Farmer
Nov. 1, 1886.	150	Job T. Haskins	"	48	Mill road	Box maker
Dec. 14, 1878.	149	John Silvia	"	55	Belleville road	Shoemaker
"	148	A. B. Grinnell, Jr.	"	55	No. Acushnet av.	Grocer
"	152	James A. Wilbur	"	49	Mill road	Box maker
"	165	Allen Russell, Jr.	"	37	No. Acushnet av.	Farmer
Dec. 4, 1882.	164	George W. Hawes	"	41	"	Teamer
Jan. 7, 1889.	163	Nathan C. Briggs	"	60	"	Carpenter
May 31, 1892.	157	Walter H. Darling	"	29	Main st.	Box maker
Sept. 25, 1893.	162	Fred W. Bowles	"	29	No. Acushnet av.	Sawyer
May 28, 1894.	156	Henry E. Reed	"	27	Mill road	Bricklayer
May 4, 1890.		Frank C. Bennett	Substitute	20	Howard av.	Bricklayer
May 4, 1890.		George J. Allen	"	20	No. Acushnet av.	Plumber

HOOK AND LADDER COMPANY No. 1.

House, corner of Purchase street and Mechanics lane. Carriage built by La France Steam Fire Engine Co., Elmira, N. Y.; put into commission November 1, 1891.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Jan. 27, 1890.	104	Philip C. Russell	Captain	31	4 Walnut st.	Stereotyper
Sept. 26, 1887.	100	Loren N. Mosher	1st Lieut.	37	30 Elm st.	Electrician
Jan. 5, 1884.	101	Frank Spooner	2d Lieut.	39	167 Smith st.	Painter
Mar. 30, 1874.	89	Charles E. Pierce	Clerk	47	117 Willis st.	Printer
Jan. 31, 1870.	87	Lysander W. Davis	Ladderm'n	59	106 Chestnut st.	Carpenter
June 24, 1883.	105	Edward D. Francis	"	39	86 Kempton st.	Shoemaker
June 24, 1889.	91	William L. Fletcher	"	29	38 Cedar st.	Machinist
Aug. 5, 1865.	102	Charles J. Johnson	"	61	23 Locust st.	Spar maker
Jan. 26, 1891.	88	Charles P. Johnson	"	36	72 First st.	Mechanic
Oct. 26, 1863.	90	Abram R. Luscomb	"	55	62 Summer st.	Laborer
Aug. 7, 1863.	86	Philip M. Tripp	"	55	102 Ash st.	Teamer
Nov. 29, 1886.	103	Alfred M. Gifford	Axeman	31	49 So. Second st.	Teamer
June 24, 1889.	107	William R. Russell	"	28	4 Walnut st.	Ornament'r
May 26, 1890.	106	William W. Braman	Substitute	25	88 High st.	Clerk
July 25, 1890.	98	George A. Caswell	"	24	20 Madison st.	Mechanic
Sept. 1, 1888.	93	George S. Allen	Driver	33	Engine house	Hostler
May 13, 1893.	97	Charles A. Haskins	Tillerman	27	"	

HOOK AND LADDER COMPANY No. 2.

House on Weld street. Carriage built by Joseph T. Ryan of Boston; put into commission August 4, 1877. Present company organized September, 1888.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Sept. 1, 1888.	172	Edward F. Dahill	Captain	33	85 Austin st.	Merchant
"	175	M. H. Sullivan	1st Lieut.	36	78 North st.	Carpenter
"	179	William McCann	2d Lieut.	33	200 No. Front st.	Peddler
May 1, 1890.	184	Frank R. Pease	Clerk	36	923 Acushnet av.	Druggist
Sept. 1, 1888.	171	Henry W. Kenyon	Ladderm'n	53	910 Acushnet av.	Agent
"	180	Peter F. Sullivan	"	33	New County st., near Linden	Grocer
"	178	David Warren	"	37	257 State st.	Stableman
"	183	J. T. Haggerty	"	25	945 County st.	Stableman
Mar. 1, 1892.	173	William Sellicks	"	25	136 No. Front st.	Driver
Sept. 1, 1892.	182	Henry Lenhardt	"	22	296 Cedar Grove	Grocer
Sept. 1, 1888.	177	John S. Harrington	Axeman	35	Pleasant and Weld sts.	Driver
Sept. 1, 1892.	174	Charles H. McCarty	"	23	State & Clark sts.	Driver
Sept. 8, 1893.	176	Ed. M. Murphy	Substitute	29	834 County st.	Grocer
Dec. 18, 1894.	181	John Conway	"	18	24 Washburn st.	Plumber
Oct. 9, 1894.	108	Geo. H. Nickerson	Driver	26	Engine house	Hostler

HOOK AND LADDER COMPANY No. 3.

House on Fourth street, head of Potomska. Carriage built by La France Steam Fire Engine Co., Elmira, N. Y.; put into commission August 30, 1888. Present company organized November 1, 1891.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Nov. 1, 1891.	217	E. Edward Enos.	Captain	31	827 So. Water st.	Druggist
"	219	Daniel Nelson	1st Lieut.	30	200 So. Second st.	Mason
"	222	Henry R. Lindsey	2d Lieut.	32	Cor. County and Rockland	Carpenter
"	229	George H. Baylies	Clerk	23	111 Grinnell st.	Painter
"	218	John O'Neil	Ladderm'n	30	30 Thompson st.	Glass cutter
"	226	Charles B. Church	"	23	256 Fourth st.	Fish dealer
"	221	Henry E. Chase	"	30	167 Grinnell st.	Painter
June 5, 1893.	228	Manuel J. Francis	"	30	169 So. Second st.	Teamster
Feb. 1, 1892.	225	S. J. Cassidy, Jr.	"	29	1 Hall st.	Painter
Dec. 5, 1892.	230	Ernest F. McCarty	"	26	109 Potomska st.	Blacksmith
Nov. 1, 1891.	224	James R. Gifford	Axeman	32	3 Rockland st.	Lineman
Nov. 1, 1891.	220	John J. Meaney	"	25	West French av.	Carpenter
Jan. 7, 1895.	227	Nelson L. Pike	Substitute	30	5 Katharine st.	Wood worker
Feb. 14, 1894.	223	Edw'd R. Hathaway	"	21	208 County st.	Shoemaker
Aug. 1, 1892.	232	John W. Donaghy	Driver	29	Engine house	Hostler
Nov. 1, 1891.	231	Henry J. Marshall	Tillerman	31	"	Tillerman

HOSE COMPANY No. 1.

House, corner of Purchase street and Mechanics lane. Wagon built by Brownell, Ashley & Co., New Bedford; put into commission December 1, 1888. Company organized December 31, 1871.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	Age.	RESIDENCE.	OCCUPAT'N.
Dec. 1, 1889.	82	John W. Baker	Captain	33	46 Hill st.	Carpenter
"	78	Aug. G. Mitchell	1st Lieut.	38	134 No. Second st.	Salesman
"	83	David W. Howland	2d Lieut.	56	219 Kempton st.	Blacksmith
"	85	John B. Oliver	Clerk	30	263 Cottage st.	Blacksmith
"	81	James S. Hathaway	Hoseman	64	496 Acushnet av.	Shipwright
"	79	Charles L. Maxfield	"	31	49 Mechanics lane	Printer
Nov. 14, 1894.	80	Frank Lewis	"	32	208 Kempton st.	Salesman
Dec. 3, 1894.	120	Isaac Allen	Substitute	38	229 No. Second st.	Teamer
June 24, 1893.	84	Roland A. Hatch	Driver	27	342 Acushnet av.	Hostler

HOSE COMPANY No. 2.

House on Weld street. Carriage built by the Amoskeag Manufacturing Co., Manchester, N. H.; put into service January 1, 1872. Present company organized December 3, 1888.

DATE OF JOINING.	No. of Badge.	NAME.	RANK.	AGE.	RESIDENCE.	OCCUPAT'N.
Dec. 3, 1888.	186	Joseph Dawson	Captain	34	17 Pope st.	Merchant
"	187	Mark Watson	1st Lieut.	35	774 County st.	Merchant
"	188	Stephen L. Finnell	2d Lieut.	35	17 Reynolds st.	Salesman
"	192	George C. Hewins	Clerk	23	762 County st.	Engineer
"	189	Bart. P. Fury	Hoseman	30	549 Purchase st	Salesman
"	190	Frank E. Foley	"	27	State st	Fish dealer
Apr. 16, 1889.	191	Wm. Woolfenden	"	25	399 Pleasant st	Barber
Aug. 1, 1893.	193	John Watson	Substitute	36	State st.	Clerk
Dec. 3, 1888.	194	Reuben Taber	Driver	39	Engine house	Hostler

NEW BEDFORD PROTECTING SOCIETY.

President, Charles S. Kelley; First Director, Jonathan Handy; Second Director, William A. Robinson; Third Director, Charles H. Lawton; Fourth Director, Edward T. Pierce; Fifth Director, Charles M. Haskell; Sixth Director, Edmund F. Maxfield; Seventh Director, Edmund Wood; Eighth Director, John H. Lowe; Secretary and Treasurer, Edmond L. Wilde.

Francis T. Akin,
Gilbert Allen,
Gideon Allen, Jr.,
George H. H. Allen,
James H. Bamford,
William Bamford,
Lewis E. Bentley,
George W. Bennett,
O. Frank Bly,
Standish Bourne,
George E. Briggs,
Charles A. Case,
R. C. P. Coggeshall,
Clifton H. Cornish,
Edwin Dews,
Henry C. Denison,
Ernest A. Dunham,
Fred C. Dunham,
Joseph Dias,
John Eldridge, Jr.,
Walter F. Field,
Edward R. Gardner,
John E. Gibbs,
Frank H. Gifford,
Charles H. Gifford,
A. W. Hadley,
Charles H. Holden,
John J. Howland,
Charles M. Hussey,
Henry F. Hammond,
Henry Howard,
Thomas H. Knowles,
G. D. Kingman,

Edgar R. Lewis,
Philander F. Manchester,
Frederick B. Macy,
Willard Nye, Jr.,
Otis N. Pierce,
William F. Potter,
James N. Parker,
William H. Pitman,
Charles L. Paine,
Stephen D. Peirce,
George A. Phillips,
William F. Read,
Morgan Rotch,
Arthur E. Robbins,
Louis H. Richardson,
Gardner T. Sanford,
Frank E. Sawin,
R. W. Swift,
Frederick Swift,
Leander H. Swift,
S. Edward Shaw,
Robert Snow,
Charles M. Taber,
William T. Taylor,
Alfred Thornton,
Alfred G. Wilbor,
William H. Willis,
Horace Wood,
Frederic A. Washburn,
Thomas F. Wood,
William R. West,
Mark T. Vincent.

Fire Alarms, Losses and Insurance for 1894.

The loss by fire for the year ending December 31, 1894, was \$28,-481.98. Amount of insurance, \$186,850. Number of bell alarms, 69. Number of still and telephone alarms, 76. Total alarms, 145.

Jan. 1, 9 A. M. (Telephone.) Chimney fire in house corner of Hawthorn and Orchard streets, owned by heirs of Edmund Grinnell, and occupied by Mrs. Edmund Grinnell. Responded to by men from No. 4 station. No loss.

Jan 2, 8 A. M. (Telephone.) Chimney fire in house on Hawthorn street, owned and occupied by Gilbert Allen. Responded to by men from No. 4 station. No loss.

Jan. 13, 5.35 P. M. Chimney fire in house corner of Pleasant and Union streets, owned by heirs of David R. Greene, and occupied by Dr. Johnson. Responded to by men from Central station. No loss.

Jan. 19, 7.55 P. M. Box 56. Fire in Button Factory, corner of Rivet and First streets, owned by Potomska Mills Company, and occupied by Hedge, Lewis & Co. Cause, spontaneous. Responded to by Companies 4 and 6, Hook and Ladder 3, and Hose 1. Loss on building, \$200; insurance on building, \$1,000. Loss on contents, \$2,984.88; insurance on contents, \$5,800.

Jan. 23, 12.40 P. M. Box 26. Fire on petroleum oil car on New York, New Haven & Hartford Railroad, owned by Standard Oil Co. Cause, sparks from engine. Responded to by Companies 1, 2 and 5, Hook and Ladder 1, and Hose 1. Loss trivial.

Jan. 31. (Telephone.) Chimney fire in house corner of Eighth and Union streets, owned and occupied by Charles H. Briggs. Responded to by men from Central station. No loss.

Feb. 3, 8.20 P. M. (Telephone.) Alarm caused by employes of William H. Washburn's planing mill on North Water street, fooling with the automatic alarm. Responded to by men from Central station.

Feb. 8, 1.30 A. M. Box 56. Fire in dwelling house on South Water street, occupied by James Parker and David Waugh. Caused by lighted match dropped on lounge. Companies responding: Engines

4 and 6, Hook and Ladder 3, and Hose 1. Loss on building, \$415; insurance on building, \$1,500. Loss on contents, \$125; insurance on contents, \$800.

Feb. 8, 10 P. M. Box 125. Fire in planing mill and lumber yard 27 and 29 Bowditch street, owned by Cook & Smith, and occupied by E. Fournier & Co. and E. & K. C. Terry. Caused by sparks. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$225; insurance on building, \$500. Loss on stock, \$397; insurance on stock, \$3,000.

Feb. 13. (Telephone.) Fire in grocery store 43 Dartmouth street, occupied by Daniel W. Baker. Caused by overheated stove. Responded to by men from No. 4 station. No loss.

Feb. 13, 10.09 P. M. Box 24. Fire in dwelling house 72 Ash street, occupied by Edward Thorne and Mrs. L. A. Wainer. Caused by overheated soup kettle. Responded to by Companies 5 and 7, Hook and Ladder 1, and Hose 1. No loss.

Feb. 18, 4 P. M. Box 26. Alarm sounded on account of fire in house of Henry H. Rogers, Fairhaven. Engine No. 2 was sent over.

Feb. 19, 5.40 P. M. (Still.) Fire in Wamsutta Mills building No. 5, owned and occupied by Wamsutta Mills Co. Caused by electric light wires. Responded to by men from Weld street station. Loss trivial.

Feb. 23. Chimney fire in house on Shawmut avenue, owned and occupied by John O'Neil. Responded to by men from No. 7 station. No loss.

Feb. 25. (Telephone.) Chimney fire in dwelling house on Seventh street, occupied by Charles F. Moore. Responded to by men from Central station. No loss.

Feb. 25. (Telephone.) Chimney fire in dwelling house 75 Washington street, owned and occupied by James C. Briggs. Responded to by men from No. 4 station. No loss.

Feb. 26, 11.15 P. M. Box 31. Fire in building 350 Acushnet avenue, owned by George S. and Frederick Homer, William B. Macomber and Charles E. Hawes, and occupied by A. G. Tripp and others. Cause, overheated oil stove. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. Loss on building, \$86.46; insurance on building, \$11,800. Loss on contents, \$220; insurance on contents, \$17,000.

March 5, 3.30 P. M. Fire in dwelling house on Coggeshall street, owned by Smith Brothers. Cause, overheated stove. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

March 8, 8.15 A. M. (Telephone.) Fire in market on Purchase street, occupied by Ashley & Dixon. Cause, hot stove. Responded to by men from Central station. No loss.

March 9, 2.30 P. M. (Still.) Fire in dwelling 63 Bedford street, owned by Pardon Cornell, and occupied by Mrs. Clement Nye. Cause, chimney. Responded to by men from No. 4 station. No loss.

March 12, 3.30 P. M. Box 23. Fire in dwelling corner of Kempton and Jenney streets, owned by Owen Sheehan, and occupied by Winnifred Sheehan. Cause, sparks from chimney. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 1. Loss on building, \$135.50; insurance on building, \$1,000. Loss on contents, \$11; insurance on contents, \$400.

March 12. (Still.) Fire on awning in front of Peirce Furnishing Co's store on Purchase street, corner of Kempton. Cause, lighted cigar. Extinguished by citizens. No loss.

March 12, 6 P. M. (Still.) Fire in barber shop on Purchase street, owned by S. Folsom, and occupied by John Offley. Cause, dropping of lighted lamp. Responded to by men from Central station. No loss.

March 15. (Telephone.) Fire in store corner of Pleasant and Kempton streets, occupied by Perry P. Jenney & Son. Cause, fall of lighted lamp. Responded to by men from Central station. No loss.

March 20, 8 A. M. Box 3. Fire in house on Tarkiln Hill road, owned and occupied by Mrs. Mary Davis. Cause unknown. Responded to by Hancock Company No. 9. Loss \$200; no insurance.

March 20. (Still.) Fire in brush heap on Blackmer street. Responded to by men from No. 6 station.

March 22, 11 P. M. (Telephone.) Fire in store on Pleasant street, owned by Albert B. Drake, and occupied by Sisson & Rlng. Cause, electric wires. Responded to by men from Central station. No loss.

March 25, 11.15 A. M. Box 41. Alarm rung in on account of fire in house owned by E. B. Swain in Dartmouth. Steamer No. 4 was sent over.

March 26, 10 A. M. Box 56. Fire in barber shop 370 South Water street, owned by George Moss, and occupied by Owen J. Dowd. Cause, overheated flue. Companies responding: Engines 4 and 6, Hose 1, and Hook and Ladder 3. Loss on building, \$125; insurance on building, \$500. Loss on contents, \$50; no insurance.

March 31, 9 A. M. Box 14. Fire in house corner Acushnet avenue and Campbell street, occupied by John Hayward. Cause, water

boiled out in pot of meat. Companies responding: Engines 1 and 5, Hook and Ladder 1, and Hose 1. No loss.

April 3, 11 P. M. Fire in photograph saloon on Rivet street, owned by Bernard O'Brien, and occupied by Joseph Bedard. Cause unknown. Companies responding: Engines 4 and 6, Hose 1, and Hook and Ladder 3. Loss on building, \$314.50; insurance, \$2,500.

April 5, 5 P. M. Box 28. Fire in dwelling corner Union and Ash streets, occupied by John O'Neil. Cause, gas jet near drapery. Companies responding: Engines 2 and 5, Hook and Ladder 1, and Hose 1. Loss, \$88.50; insurance, \$2,000.

April 11, 11 P. M. Fire in harness shop 753 Purchase street, owned by H. B. Coffin, and occupied by John Perreault. Cause unknown. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$225.86; insurance on building, \$1,250. Loss on contents, \$475; insurance on contents, \$700.

April 14, 6 A. M. (Still.) Fire in City Mills, owned and operated by City Manufacturing Co. Cause, electric wires. Responded to by mill department. No loss.

April 17, 9.20 A. M. Box 14. Fire in dwelling house corner State and Willis streets, owned and occupied by Hon. E. L. Barney. Cause, drapery against gas jet. Companies responding: Engines 1 and 5, Hook and Ladder 1, and Hose 1. Loss on building, \$121.50; insurance on building, \$5,000. Loss on contents, \$175; insurance on contents, \$3,500.

April 20. (Still) Fire in dwelling on Mt. Pleasant street, owned and occupied by James Goddard. Cause, can of varnish on stove. Responded to by men from No. 7. No loss.

April 21, 6.50 P. M. Box 125. Chimney fire in house No. 52 Washburn street. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

April 25, 10 P. M. Box 125. Fire in grain store on Weld street, occupied by Gurney Bros. Cause, incendiary. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

April 25, 9 P. M. Chimney fire in dwelling house 814 Purchase street. No loss.

April 26, 8 P. M. Box 23. Fire in woods on West Maxfield street. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 1. No loss.

April 28, 2.30 A. M. Box 125. Fire in planing mill on Bowditch street, owned by Cook & Smith, and occupied by E. Fournier & Co.

Cause, sparks in hot ashes. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

April 30. (Still.) Fire in dwelling house No. 16 Crapo street, occupied by May B. Case. Cause unknown. Responded to by men from No. 6 station. Loss on building, \$69; insurance on building, \$1,000. Loss on contents, \$4; insurance on contents, \$500.

April 30, 7.45 P. M. Box 27. Fire in dwelling on corner Elm and Purchase streets, owned and occupied by Francis Hathaway. Cause unknown. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. Loss on building, \$175; insurance on building, \$6,000.

May 4, 10 P. M. Box 127. Fire in grocery store and dwelling corner Purchase and Logan streets, owned by James Lord, and occupied by William Ogden and Harry Etchets. Cause, defective lamp. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$234; insurance on building, \$2,000. Loss on contents, \$125; insurance on contents, \$1,000.

May 10. (Telephone.) Chimney fire in house No. 18 Bonney street, occupied by Mrs. S. D. Smith. Responded to by men from No. 4 station. No loss.

May 10. (Telephone.) Chimney fire in house on Prospect street, occupied by Benjamin Sutton. Responded to by men from No. 6 station. No loss.

May 12, 2.45 P. M. Box 3. Fire in Cummings' wood, Head-of-the-River. Responded to by Hancock Engine Company No. 9.

May 13, 8 P. M. (Telephone.) Fire in dwelling house No. 44 High street, occupied by Mrs. Mercy Hatch. Cause, curtain near lamp. Responded to by men from Central station. No loss.

May 13, 9 P. M. Box 125. Fire in barn and carriage house on Acushnet avenue, rear of Pope House, occupied by Thomas Durant. Cause, incendiary. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss, \$200; no insurance.

May 14. Box 226. Fire in machine shop 13 Rodman street, owned by Capt. William Lewis, and occupied by F. W. Luscomb Machine Co. Cause, sparks from chimney. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. Loss on building, \$11.93; insurance on building \$1,000.

May 14, 8.20 P. M. Box 124. Fire in dwelling house on Beetle street, occupied by Joseph Robishaw. Cause, lamp explosion. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

May 29. Box 123. Fire in cabinet shop rear of 341 Coffin avenue, owned and occupied by Court Schelgel. Cause, lamp explosion. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$150; no insurance. Loss on contents, \$186.31; insurance on contents, \$200.

May 31, 2.45 A. M. Box 15. Fire in dwelling house on Hunter and West Maxfield streets, owned and occupied by George Law. Cause, incendiary. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 2. Loss on building, \$900; insurance on building, \$900. Loss on contents, \$500; insurance on contents, \$500.

June 7, 10 P. M. Box 62. Fire in Grinnell Mill waste house, owned and occupied by Grinnell Manufacturing Co. Cause, spontaneous combustion. Companies responding: Engines 1, 2, 5 and 7, Hook and Ladder 2, and Hose 2. No loss.

June 7. (Telephone.) Fire in dwelling house on Hawthorn street, owned and occupied by Gilbert Allen. Cause, crossing of electric wires. Responded to by men from No. 4 station. No loss.

June 9, 11 P. M. (Still.) Fire in dwelling house No. 277 Coggeshall street, owned by Samuel C. Hunt. Cause, incendiary. No loss.

June 10, 12.15 P. M. (Still.) Chimney fire in house on Fourth street, owned and occupied by Mrs. H. G. O. Cole. Responded to by men from No. 4 station. No loss.

June 11, 3.30 P. M. Box 125. Fire in store on Acushnet avenue, near Weld street, owned by S. Duckworth and occupied by B. Gadi-man. Cause, caught from lantern. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$25; insurance on building, \$2,000.

June 19. Box 46. Fire in building No. 1 Leonard street, occupied by E. Brogan and Joseph Gautler. Cause, sparks from chimney. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. No loss.

June 22, 1.30 P. M. (Still.) Fire in rags in a lot on Centre street. Responded to by men from Central station. No loss.

June 22. (Still.) Chimney fire in dwelling house 228 Pleasant street. Responded to by men from No. 5 station. No loss.

June 25. (Still.) Fire in lot of rubbish between Hastings' building and Chace's block. Cause, incendiary. Responded to by men from Central station. No loss.

June 25. Box 48. Chimney fire in house on Water street, occupied by Portuguese families. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. No loss.

June 29, 11 P. M. Box 135. Fire in drug store 221 Coggeshall street, occupied by Lorenzo Sargent. Cause, explosion of lamp. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

July 3, 3 A. M. (Telephone.) Fire in shoe shop 32 North Second street, occupied by William A. Dunbar. Cause, firecrackers. Responded to by men from Central station. No loss.

July 4, 8.45 A. M. Box 14. Fire in store on Purchase street, near Pearl, owned by Dr. Sheehy, and occupied by Frank King. Cause, sparks in fireworks. Companies responding: Engines 1 and 5, Hook and Ladder 1, and Hose 1. Loss on building, \$25; no insurance. Loss on stock, \$30; no insurance.

July 4, 2.40 P. M. Box 31. Fire in building rear of F. W. Francis' factory, owned by Daniel Ricketson, and occupied by Charles F. Wing. Caused by fireworks. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. Loss on building, \$25; no insurance. Loss on stock, \$66.06; insurance on stock, \$2,500.

July 4, 1.45 P. M. (Telephone.) Fire in dwelling 74 Washington street, owned by Michael Stephens, and occupied by Edward Walley and Walter Gultine. Cause, fireworks. Responded to by men from No. 4 station. No loss.

July 4. (Telephone.) Fire in dwelling house No. 118 Mill street. Cause, fireworks. Responded to by men from No. 5 station. No loss.

July 4. (Telephone.) Fire in dwelling house on County street, occupied by D. S. Small. Cause, fireworks. Responded to by men from No. 5 station. No loss.

July 6, 9 A. M. Box 46. Fire in blacksmith shop on South Water street, owned by W. D. Sherman and Lloyd Pierce, and occupied by W. D. Sherman. Cause, sparks from chimney. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. Loss, \$10; insurance, \$1,400.

July 8, 11 A. M. Box 3. Fire in grapery in Acushnet, owned by Rodolphus N. Swift. Hancock Engine No. 9 responded.

July 9, 3.45 P. M. Box 24. Fire in yard of house on Elm street, near Ash. Cause, boys set fire to bushes. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 1. No loss.

July 10, 6 P. M. Box 34. Fire in Standard building on Union street, owned and occupied by E. Anthony & Sons. Cause, sparks from chimney. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. No loss.

July 11, 10 P. M. Boxes 28 and 67. Both boxes rung in for same fire, which was in a building on Court street, owned by New Bedford Cordage Co. Cause, incendiary. Companies responding: Engines 2, 4 and 5, Hook and Ladders 1, 2 and 3, and Hose 1 and 2. Loss, \$100; no insurance.

July 11, 10.10 P. M. Boxes 18 and 27. Both boxes rung in for same fire. Fire between White Cash Market and New Bedford Dye House on Purchase street. Cause, incendiary. Companies responding: Engines 1 and 4, Hook and Ladder 2, and Hose 2. No loss.

July 13, 11 P. M. Box 21. Fire in stave dressing mill and planing mill, owned and occupied by Lemuel W. Hayes and William H. Washburn. Cause, unknown. Companies responding: Engines 1, 2 and 5, Hook and Ladder 1, and Hose 1. Loss on buildings, \$671.36; insurance on buildings, \$8,598. Loss on contents, \$249.22; insurance on contents, \$7,902.

July 13. (Still.) Fire in bog on West Maxfield street. Responded to by men from No. 7 station.

July 13. (Still.) Chimney fire in dwelling house corner Ashland and Austin streets. Responded to by men from No. 7. No loss.

July 14. (Still.) Fire in car house on Mt. Pleasant, owned and occupied by Union Street Railway Co. Caused by electric wires. Responded to by men from No. 7 station. No loss.

July 15. (Still.) Fire in old freight car, owned by Dartmouth & Westport Street Railway Co. Responded to by men from No. 7 station. No loss.

July 26, 11.50 A. M. Box 7. Fire in dwelling house No. 625 Purchase street, owned by Patrick Smith, and occupied by Patrick Smith and Manuel Perry. Cause, explosion of oil stove. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$500; insurance on building, \$2,000. Loss on contents, \$200; insurance on contents, \$1,000.

July 25. (Still.) Fire in dwelling house corner Mill and Florence streets. Cause, upsetting of lamp. No loss.

July 31, 8 P. M. Box 25. Fire in dwelling house 284 Kempton street, occupied by John Beck. Cause, clothes horse too near fire. Companies responding: Engines 2 and 5, Hook and Ladder 1, and Hose 1. No loss.

Aug. 1, 8 P. M. (Still.) Fire in box factory at Long Plain, owned by H. W. Cushman. Steamer No. 1 and Hancock No. 9 were sent out.

Aug. 3, 10.30 P. M. Box 31. Fire in building known as the Sheridan House, belonging to heirs of James D. Thompson, and occupied by Jacob Veith. Cause unknown. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. Loss on building, \$12; insurance on building, \$1,500. Loss on contents, \$8; insurance on contents, \$1,000.

Aug. 9. (Still.) Four transformers on pole on Purchase street, near Logan, burned out. Cause, lightning. Responded to by men from Weld street station.

Aug. 9. (Telephone.) Fire in store on Hemlock street, occupied by Mr. Lagesse. Cause, lightning. Responded to by men from No. 6 station. No loss.

Aug. 17, midnight. Box 3. Fire in barn and shed on Head-of-the-River road, owned by William E. Spooner, and occupied by Richard Dugdale. Cause, incendiary. Responded to by Hancock Company No. 9. Loss on building, \$1,200; insurance on building, \$1,200. Loss on contents, \$950; insurance on contents, \$1,200.

Aug. 21, 11.15 P. M. Box 52. Fire in hardware store corner Fourth and Rivet streets, owned by O. C. Brunell, and occupied by Antonio F. Francis. Cause unknown. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. Loss on building, \$401; insurance on building, \$4,000. Loss on contents, \$1,058; insurance on contents, \$1,500.

Aug. 21. (Still.) Chimney fire in dwelling house No. 15 Weld street, occupied by H. Bentley. Responded by men from Weld street station. No loss.

Aug. 23, 8.30 A. M. (Still.) Chimney fire in dwelling house No. 76 Mechanics lane, owned by Tilden Bros., and occupied by Mrs. Richardson. Responded to by men from Central station. No loss.

Aug. 25, 8 P. M. Box 125. Fire in shed No. 74 Washburn street, owned and occupied by P. O'Leary. Cause, incendiary. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. No loss.

Sept. 1, 10.45 P. M. (Still.) Chimney fire in Winslow's block, owned by Dr. George F. Winslow. Responded to by men from Central station. No loss.

Sept. 7, 1 P. M. Box 12. Brush fire on Shawmut avenue. Companies responding: Engines 5 and 7, Hook and Ladder 2, and Hose 2.

Sept. 7. Box 3. Brush fire on Tarkiln Hill road. Responded to by Hancock Company No. 9.

Sept. 13. (Telephone.) Fire in dwelling corner Cedar and Willis streets, owned by Annie Russell, and occupied by Thomas Mack. Cause unknown. Responded to by men from No. 7 station. Loss on building, \$17; insurance on building, \$1,000. Loss on contents, \$90; insurance on contents, \$350.

Sept 14. (Still.) Chimney fire in dwelling house on Purchase street, owned by heirs of S. M. Hall, and occupied by Dr. Gordon. Responded to by men from No. 1 station. No loss.

Sept. 16, 5.15 A. M. (Still.) False alarm from William H. Washburn's planing mill. Responded to by men from Central station.

Sept. 22, 1 P. M. (Telephone.) Fire in dwelling 223 Acushnet avenue, owned by Mr. Powers. Cause, green wood in oven. Responded to by men from No. 4 station. No loss.

Sept. 29. (Telephone.) Chimney fire in bakery on Allen street, owned and occupied by George H. V. D. Cleveland. Responded to by men from No. 4 station. No loss.

Oct. 3, 12.39 A. M. Box 48. Fire in house on Water street, owned by Joseph C. Perry, and occupied by B. Korning. Cause, incendiary. Companies responding: Engines 4 and 6, Hook and Ladder 1, and Hose 1. Loss on building, \$190; insurance on building, \$600. Loss on contents, \$168.39; insurance on contents, \$800.

Oct. 10, 7.45 P. M. (Still.) Fire in house on South Water street, owned by Mr. Francis, and occupied by Mrs. Gardner. Cause, explosion of oil stove. Responded to by men from Central station. No loss.

Oct. 10. (Telephone.) Chimney fire in house on Hawthorn street, owned and occupied by Charles W. Plummer. Responded to by men from No. 4 station. No loss.

Oct. 11, 5.30 P. M. Fire in factory corner of Union and Water streets, occupied by Taber Art Co. Cause, hot ashes. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. No loss.

Oct. 13. (Still.) Fire in house 350 County street, owned by Caroline T. Sanford, and occupied by William D. Wilson. Cause, lightning. Responded to by men from No. 4 station. Loss on building, \$175; insurance on building, \$2,200.

Oct. 14, 12.30 A. M. Box 12. Fire in barn on Hathaway road, owned and occupied by George A. Potter. Cause, lightning. Companies responding: Engines 5 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$1,000; insurance, \$1,000. Loss on contents, \$725; insurance, \$750.

Oct. 15. (Still.) Fire in an unoccupied shed on Merrimac street, owned by Warren Ladd. Cause, boys. Responded to by men from No. 1 station. No loss.

Oct. 17, 8 P. M. (Still.) Fire in Opera House on Union street. Cause, sparks from chimney. Responded to by men from Central station. No loss.

Oct. 20, 6.30 P. M. Box 116. Fire in shed on West Maxfield street. Caused by boys. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 1. No loss.

Oct. 24, 3.15 A. M. (Still.) Fire in clothing store 828 Purchase street, owned and occupied by Poisson Bros. Cause, match in waste basket. Responded to by men from No. 1 station. Loss on building, \$25; insurance on building, \$6,000. Loss on stock, \$825; insurance on stock, \$22,000.

Oct. 25. (Telephone.) Chimney fire in house occupied by Rev. P. R. Frothingham. Responded to by men from No. 4 station. No loss.

Nov. 4, 10.20 A. M. Box 24. Fire in dwelling house No. 276 Middle street, owned by Mrs. Sedonia Tilghman, and occupied by Mrs. Tilghman and John Austin. Cause, defective chimney. Companies responding: Engines 5 and 7, Hook and Ladder 1, and Hose 1. Loss on building, \$300; insurance on building, \$700. Loss on contents, \$25; no insurance.

Nov. 4, 9 P. M. Box 3. Fire in box factory at Head-of-the-River, owned by Frank B. Carr, and occupied by Frank Ashley and Frank Bennett. Responded to by Engines 1 and 9, Hook and Ladder 2, and Hose 2. Loss on building, \$1,400; insurance on building, \$1,800. Loss on contents, \$3,036; insurance on contents, \$3,200.

Nov. 7. (Telephone.) Chimney fire in dwelling house corner of Cottage and Morgan streets, owned by heirs of H. V. Davis, and occupied by Mrs. H. V. Davis. Responded to by men from Central station. No loss.

Nov. 15, 12.30 A. M. Box 127. Fire in liquor saloon on Purchase st., near Linden, owned by J. C. Patnaude, and occupied by J. E. McCarthy. Cause, defective gas meter. Companies responding: Engines 1 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$342.88; insurance on building, \$6,000. Loss on contents, \$50; no insurance.

Nov. 20. (Still.) Fire in market on Union street, occupied by F. P. P. Tuell. Caused by overturned lamp. Extinguished by the proprietor. No loss.

Nov. 20. (Telephone.) Chimney fire in dwelling house corner of County and Russell streets, owned and occupied by Louise Howland.

Responded to by men from No. 4 station. Loss on building, \$10; insurance on building, \$5,000. Loss on contents, \$10; insurance on contents, \$2,500.

Nov. 21, 5 P. M. Box 46. Fire in drug store corner of Water and Howland streets, owned by Mrs. Emmeline Rook, and occupied by Charles A. Rook. Cause, falling of lamp. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 3. Loss on building, \$600; insurance on building, \$1,200. Loss on contents, \$2,000; no insurance.

Nov. 25, 7 A. M. (Still.) Fire in Pope's Island Manufacturing Co. building on Pope's Island. Cause, overheated coal near boiler. Extinguished by employes. No loss.

Nov. 26, 12 M. (Still.) Chimney fire in house on Hawthorn street, owned and occupied by Walter Clifford. Responded to by men from No. 4 station. No loss.

Nov. 27, 5.15 P. M. (Still.) Chimney fire in dwelling house corner Smith and Chancery streets, owned and occupied by William H. Johnson. Responded to by men from No. 5 station. No loss.

Nov. 28. (Telephone.) Chimney fire in dwelling house corner of Madison and Orchard streets, occupied by Mrs. E. G. Leonard. Responded to by men from No. 4 station. No loss.

Nov. 28, 10 A. M. (Telephone.) Alarm caused by smoke from furnace in Dartmouth Street schoolhouse. No fire; no loss. Responded to by men from No. 4 station.

Nov. 30, 11.30 A. M. (Still.) Chimney fire in dwelling house No. 340 Middle street, occupied by Manuel Costa. Responded to by men from Central station. No loss.

Nov. 30, 2.45 P. M. (Still.) Chimney fire in boarding house No. 20 Seventh street, occupied by Mrs. Stephen Crowell. Responded to by men from No. 4 station. No loss.

Dec. 2, 10 A. M. (Still.) Chimney fire in dwelling house on South Orchard street, owned and occupied by Mrs. Barstow. Responded to by men from No. 4 station. No loss.

Dec. 3, 11.30 P. M. Box 3. Fire in box factory at Acushnet, owned and occupied by H. W. Cushman. Engines 1 and 9, Hook and Ladder 2, and Hose 2 were sent out.

Dec. 5. (Still.) Chimney fire in market corner of Purchase and High streets. Responded to by men from Central station. No loss.

Dec. 7, 8.50 P. M. Box 134. False alarm. Companies responding: Engines 1, 7 and 8, Hook and Ladder 2, and Hose 2.

Dec. 11, 6.35 P. M. Box 27. Fire in Folsom's block on Purchase street, owned by S. Folsom, and occupied by Hervey F. Baker. Cause, lace curtains ignited from match. Companies responding: Engines 2 and 4, Hook and Ladder 1, and Hose 1. No loss.

Dec. 11. (Still.) Fire in clothing store on Purchase street, owned and occupied by Poisson Bros. Cause, electric wires. Responded to by men from Weld street station. No loss.

Dec. 12, 11.30 A. M. Box 56. Fire in saloon on South Water street, owned and occupied by John Cassidy. Cause, boys smoking. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. No loss.

Dec. 16. Fire in pawn shop 742 Purchase street, occupied by Geo. Levy. Cause, igniting of lace curtain. Responded to by men from Weld street station. No loss.

Dec. 18, 1 A. M. Box 13. Fire in building corner of Locust and Cedar streets, owned by John B. Sullivan, and occupied by Frank Halstrom, druggist, and William H. Bennett, grocer. Cause unknown. Companies responding: Engines 5 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$1,000; insurance on building, \$2,500. William H. Bennett, loss on stock, \$136.63; insurance on stock, \$1,000. Frank Halstrom, loss on stock, \$950; insurance on stock, \$1,200.

Dec. 20, 8.30 P. M. Box 8. Fire in grocery store 190 Chestnut street, owned by James M. Parlow, and occupied by H. C. Lawrence. Cause, incendiary. Companies responding: Engines 5 and 7, Hook and Ladder 2, and Hose 2. Loss on building, \$15; insurance on building, \$400. Loss on contents, \$10; insurance on contents, \$900.

Dec. 24. Box 46. Fire in store and tenement house No. 6 Pine street, owned by Manuel Lemos, and unoccupied. Cause, sparks from thawing out pipe. Companies responding: Engines 4 and 6, Hook and Ladder 3, and Hose 1. Loss on building, \$200; no insurance.

Dec. 28. (Still.) Chimney fire in house on Pease's court, owned and occupied by William A. Deane. No loss.

Dec. 29, 8 P. M. Box 28. Fire in dwelling house on Ash street, belonging to estate of J. P. Allen. Cause, overheated furnace. Companies responding: Engines 2 and 5, Hook and Ladder 1, and Hose 1. Loss on building, \$295; insurance on building, \$3,000.

Dec. 31, 6 P. M. (Still.) Chimney fire in house corner of Hazzard's court and Austin street, owned by Wamsutta Mills Co. Responded to by men from No. 1 station. No loss.

Dec. 31. Box 21. Fire in building corner of North and Water streets, owned and occupied by Bowker & Tripp. Caused by sparks from boiler. Companies responding: Engines 1, 2 and 5, Hook and Ladder 1, and Hose 1. Loss on building, \$75; insurance on building, \$500. Loss on stock, \$75; insurance on stock, \$12,500.

Dec. 31, 5.55 A. M. (Still.) Fire in building owned by George H. Bliss, and occupied by David J. Shepherd. Cause, match carelessly dropped. Responded to by men from No. 4 station. Loss on building, \$35; insurance on building, \$2,500. Loss on contents, \$40; no insurance.

The following is the amount of losses by fire in this city for the past eighteen years, together with the amount of insurance on same:

Years.	Loss.	Insurance.
1877,	\$26,063.66	\$21,528.36
1878,	28,154.46	66,025.00
1879,	9,163.16	54,950.00
1880,	7,609.13	49,450.00
1881,	26,624.96	86,979.00
1882,	23,169.64	692,950.00
1883,	17,398.14	77,450.00
1884,	134,729.82	310,950.00
1885,	6,982.41	148,025.00
1886,	26,786.03	1,108,800.00
1887,	45,141.50	708,150.00
1888,	32,881.87	125,927.00
1889,	42,285.71	182,772.00
1890,	18,145.02	71,300.00
1891,	43,032.65	297,487.13
1892,	73,947.46	271,710.00
1893,	94,516.21	231,375.00
1894,	28,481.98	186,850.00

Fire Alarm Telegraph, 1894.

SUPERINTENDENT.

FREDERICK MACY, Chief Engineer.

ASSISTANT SUPERINTENDENT.

DANIEL D. BRIGGS.

Residence, 43 Bedford street; Office, City Hall.

LOCATION OF SIGNAL BOXES.

No. 3. Lund's Corner.

4. Acushnet Heights, near reservoir.
123. Acushnet avenue and Davis street.
124. Acushnet avenue and Sawyer street.
125. Corner Bowditch and Weld streets.
126. Cedar Grove and North Front streets.
127. Purchase and Linden streets.
128. County and Penniman streets.
134. Belleville avenue and Nye street.
135. Belleville avenue and Coggeshall street.
5. Linden and Ashland streets.
6. Hazard and State streets.
7. Purchase and Franklin streets.
8. County and Pearl streets.
9. Wamsutta street and Acushnet avenue.
12. Shawmut avenue and Durfee street.
13. Cedar and Locust streets.
14. Purchase and Willis streets.
15. Smith and Cedar streets.

16. County and Hillman streets.
17. Maxfield street and Acushnet avenue.
18. Purchase and North streets.
21. North and Water streets.
23. Kempton, west of Florence street.
24. Kempton and Cedar streets.
25. County and Kempton streets.
26. Water and Middle streets.
27. Purchase street and Mechanics lane.
28. Court and Cedar streets.
29. Arnold and Ash streets.
31. Acushnet avenue and Union street.
32. Union and Eighth streets.
34. Union and Water streets.
35. Fourth and School streets.
36. Walnut and Water streets.
37. Madison and Orchard streets.
38. Bedford and Sixth streets.
39. Acushnet avenue and Cannon street.
41. Hawthorn and Page streets.
45. Allen and Bonney streets.
46. South Water and Leonard streets.
47. Junction of Sixth and County streets.
48. Water and South streets.
51. Dartmouth and Rockland streets.
52. Fourth street, head of Potomska.
53. Crapo and Rivet streets.
56. South Water and Rivet streets.
57. Mosher and County streets.
58. South Water and Cove streets.
223. Court and Tremont streets.
226. Rodman and Front streets.
- *61. Union Street Railway Car Stables.
- *62. Grinnell Mill.
- *63. Wamsutta Mills.
- *64. New Bedford Manufacturing Co.
- *65. Hathaway, Soule & Harrington.
- *67. New Bedford Cordage Factory.
- *68. New Bedford Copper Works.
- *71. Pairpoint Manufacturing Co.
- *72. George Delano's Sons & Co's Works.
- *73. Potomska Mills.
- *74. Acushnet Mills.
- *75. Morse Twist Drill Co.
- *76. City Manufacturing Co.

- *81. Howland Mills.
- *82. Hathaway Mill.
- *83. Rotch Mill.
- *84. Iron Foundry, foot of Cannon street.
- *85. New Bedford Gas Works.
- *86. Old Colony Steamboat Co.
- *91. Bennett Mills.
- *92. New Bedford Casket Co.
- *93. Pierce Mills.
- *94. Old Colony Freight Depot, Pearl street.
- *95. Bristol Mills.
- *96. Columbia Mills.
- 42. Allen and Page streets.
- 116. Hillman and Ash streets.
- 581. City Almshouse.

* Private boxes, only to be rung for fire on the premises.

LIST OF FIRE ALARM KEYS FOR 1894.

1 Chief Engineer's office.	50 Police.
2 A. C. Tripp.	51 "
3 David Monerief.	52 "
4 Engine house No. 1.	53 "
5 George A. Bourne.	54 "
6 Andrew M. Swift.	55 "
7 Silas Dammon.	56 Mrs. A. H. Howland.
8 Engine house No. 5.	57 House N. W. corner Water
9 George Deane.	and Rivet.
10 H. H. Fisher.	58 Henry H. Fisher.
11 Store N. W. cor. Kempton and	59 J. P. Kennedy.
Cedar.	60 Police.
12 Lost.	61 Edward Hughes, cor. Acush-
13 Dennis Donnavan.	net and Coffin avenues.
14 Engine house No. 2.	62 Police.
15 County jail office.	63 Horace G. Howland.
16 J. D. Thompson's residence.	64 William G. Howland.
17 Charles Taber.	65 New Bedford Gas Co.
18 William H. Sherman's stable.	66 Hastings' coal yard.
19 Hart & Akin.	67 A. W. Holmes' coal yard.
20 Henry Taber's residence.	68 L. T. Parlow.
21 Engine house No. 4.	69 Lost.
22 Thomas B. Tripp.	70 S. C. France.
23 Greene & Wood Mfg. Co.	71 Police.
24 Cornell's stable.	72 Frederick Macy.
25 Delaño's oil works.	73 George H. Bliss.
26 B. Dawson.	74 Chief Engineer's office.
27 William Hindle.	75 George L. Brownell.
28 Store N. W. corner Cedar and	76 James M. Tripp.
Smith.	77 Potomska Mills.
29 Lost.	78 Police.
30 Edwin Dews.	79 "
31 J. B. Ashley.	80 "
32 James E. Blake.	81 "
33 House 201 Cedar.	82 Rufus A. Soule.
34 Police.	83 William H. Sherman.
35 Store N. W. corner Arnold and	84 Police.
Ash.	85 "
36 Jireh Swift.	86 Wamsutta Mills gate office.
37 J. L. Paddock.	87 Adoniram Negus.
38 Mrs. Joseph R. Read.	88 Chief Engineer's office.
39 Chief Engineer's office.	89 Wamsutta Club House.
40 Mrs. C. M. Pierce, Jr.	90 Police.
41 Stable, Fourth and Spring.	91 "
42 Mercury office.	92 "
43 Store cor. Grinnell and Sixth.	93 "
44 Store S. W. corner Water and	94 "
South.	95 "
45 Lost.	96 "
46 Robinson's oil works.	97 "
47 N. W. corner Acushnet avenue	98 "
and Maxfield street.	99 "
48 Denison Bros. N. Mill.	100 "
49 Police.	101 "

102	Police.	157	James Wilson.
103	"	158	No. 6 engine house.
104	"	159	George W. Parker.
105	"	160	House S. W. corner Acushnet
106	"		avenue and Maxfield street.
107	"	161	D. Bromley.
108	"	162	Thomas Donaghy.
109	"	163	William A. Pease.
110	"	164	Police.
111	"	165	Henry W. Kenyon.
112	"	166	Police.
113	"	167	"
114	"	168	W. F. Wheaton.
115	"	169	T. B. Rowe.
116	"	170	Store corner Allen and Dart-
117	"		mouth streets.
118	"	171	George F. Luscomb.
119	"	172	Thomas Pelan.
120	D. D. Briggs.	173	William Osgood.
121	Police.	174	Roland Ashley.
122	E. C. Milliken.	175	John H. Lowe.
123	Marcus W. Taber.	176	William J. Marr.
124	Rodolphus Beetle.	177	John Thompson.
125	Soap factory, corner Water	178	John Lincoln.
	and Middle streets.	179	L. T. Terry.
126	Henry T. Wood's residence.	180	J. W. Lavers.
127	Coal pockets, foot of Walnut	181	Chief Engineer's house.
	street.	182	Horse car stable, Purchase st.
128	Snell's bakery.	183	A. F. Brownell.
129	A. H. Rhodes.	184	Henry La Rook.
130	R. S. Lawton.	185	D. A. Snell's house.
131	George A. Taylor.	186	Abram Francis.
132	L. G. Hewins, Jr.	187	O. G. Brownell.
133	C. S. Paisler.	188	John Wing.
134	Lost.	189	Engineer of steamer No. 6.
135	Hathaway & Soule's factory.	190	George H. Cook.
136	Henry Howard.	191	T. M. Hart.
137	Mt. Washington Glass Co.	192	Jonathan Bourne's house.
138	A. M. Pierce.	193	House 510 Acushnet avenue.
139	F. A. Sowle's Mill.	194	Mt. Washington Glass Co.
140	S. P. Richmond's bakery.	195	Acushnet Mills.
141	E. H. Martin.	196	Grinnell Mills.
142	Police.	197	" "
143	George A. Cobb.	198	Pairpoint Mfg. Co.
144	A. Harrington.	199	Grinnell Mills.
145	E. C. Taber.	200	N. B. Cordage Co.
146	Engine No. 9.	201	Wamsutta Mills.
147	Hersom's soap factory.	202	N. B. Cordage Co.
148	Police.	203	" "
149	"	204	" "
150	"	205	" "
151	"	206	Acushnet Mills.
152	"	207	" "
153	"	208	Wamsutta Mills.
154	"	209	" "
155	"	210	" "
156	William Lowe's residence.	211	" "

212	Grinnell Mill.	268	Police.
213	N. B. Mfg. Co.	269	"
214	Hathaway & Soule.	270	"
215	Potomska Mills.	271	John Lowe's store.
216	Hathaway & Soule.	272	Lost.
217	Potomska Mills.	273	John Lowe.
218	" "	274	Henry L. Dunham.
219	" "	275	William F. West.
220	N. B. Mfg. Co.	276	Benjamin H. Reed.
221	" "	277	C. K. Turner.
222	" "	278	Horse car stable, Purchase st.
223	" "	279	N. B. & N. Y. Steamship Co.
224	Hathaway & Soule.	280	Charles S. Randall.
225	" "	281	Police.
226	M. T. D. & Machine Co.	282	"
227	" "	283	"
228	" "	284	Smith Bros.
229	" "	285	I. H. Shurtleff.
230	N. B. Copper Co.	286	Gate tender's lodge, Wam-
231	" "		sutta street.
232	" "	287	C. O. Andrews.
233	Selmer Eggers.	288	Orphans' Home.
234	N. B. Copper Co.	289	J. P. Taylor's residence.
235	Delano's oil works.	290	Rural cemetery.
236	House cor. Hazard and State	291	George L. Brownell.
	streets.	292	A. H. Covell.
237	Pierce & Bushnell Mfg. Co.	293	Lost.
238	D. D. Briggs.	294	Engineer steamer No. 2.
239	George W. Hillman.	295	O. F. Bly.
240	James H. Sherman.	296	L. A. Plummer's residence.
241	Delano's oil works.	297	Dr. Knowles' residence.
242	" "	298	Edward D. Mandell's resi-
243	" "		dence.
244	Police.	299	F. S. Potter's residence.
245	"	300	Loum Snow's residence.
246	"	301	Hook & Ladder No. 2.
247	"	302	House 83 Dartmouth street.
248	"	303	John Sweeney.
249	"	304	Greene & Wood Mfg. Co.
250	"	305	John Smith.
251	John Ward.	306	William H. Washburn.
252	Louis H. Richardson.	307	Horse car stable, Weld street.
253	N. B. Gas Co.	308	Bowker & Tripp.
254	" "	309	Walter Clifford's residence.
255	" "	310	King Mfg. Co.
256	" "	311	Police.
257	" "	312	"
258	" "	313	"
259	" "	314	"
260	W. K. Wagner.	315	"
261	R. S. Taber.	316	"
262	Pairpoint Mfg. Co.	317	N. W. cor. South and Water
263	George B. Wheeler.		streets.
264	Mrs. Leonard.	318	Smith & Carlton Iron Co.
265	F. A. Sowle.	319	Opera House office.
266	C. S. Kelley.	320	T. W. Croacher, lumber shed.
267	Horse car stable, Purchase st.	321	No. 9 Eighth street.

322 Police.	373 Police.
323 Janitor Opera House.	374 "
324 Engineer of steamer No. 4.	375 "
325 George Crapo.	376 "
326 S. C. Lowe's house.	377 "
327 Charles Taber.	378 S. A. Brownell.
328 J. W. Howland.	379 L. Bartel.
329 J. H. Platt.	380 E. C. Gardiner.
330 H. A. Blackmer.	381 John A. Gomley.
331 A. B. Kimball.	382 Peter F. Sullivan.
332 John O'Brien.	383 William H. Rankin.
333 Mrs. Farley.	384 Engineer steamer 1.
334 Levi W. Brawley.	385 Police.
335 House S. E. cor. North Front and Cedar Grove streets.	386 "
336 Capt. J. Sherman.	387 "
337 W. P. Booth.	388 "
338 F. Russell.	389 "
339 Police.	390 "
340 Howland Mills.	391 "
341 " "	392 "
342 " "	393 "
343 " "	394 "
344 City Mfg. Co.	395 "
345 " "	396 "
346 " "	397 Clark Underwood.
347 " "	398 Edison light station.
348 John Duff.	399 A. G. Howland.
349 T. M. Stetson's residence.	400 J. J. Howland.
350 Police.	401 Alfred R. Bucklin.
351 " "	402 Engineer steamer No. 7.
350 C. Gas Co.	403 Department lineman.
351 C. Gas Co.	404 E. E. Enos.
352 Bennett Mill.	405 Smith-Carleton Iron Co.
353 " "	406 " "
352 D. Police.	407 Bunker's drug store.
353 D. Police.	408 E. E. Enos' drug store.
354 Ullman Mfg. Co.	409 Charles H. Brownell.
355 " "	410 E. W. Hervey's residence.
356 Hathaway Mills.	411 S. A. Brownell's residence.
357 " "	412 Smith-Carleton Iron Co.
358 Morgan Rotch's residence.	413 " "
359 Engine No. 7.	414 Police.
360 Blossom Bros.' planing mill.	415 Henry Ashley, residence.
361 William G. Taber, Jr., resi- dence.	416 Luscomb & Cory's machine shop.
362 Howland Mills village.	417 Wade's currier shop.
363 " " "	418 James Burke, residence.
364 " " "	419 Bliss & Nye, store.
365 Gas Co.	420 D. B. Folger, store.
366 " "	421 Harrington school.
367 Ullman Mfg. Co.	422 Rhodes' eyelet factory.
368 " "	423 " " "
369 Bennett Mills.	424 Handy's iron store.
370 Hathaway Mills.	425 Old Colony freight.
371 " "	426 " "
372 Police.	427 Old Colony Steamship Co.
	428 " "

429 Allen Tinkham.	481 Police.
430 Old Colony freight.	482 "
431 " "	483 "
432 Old Colony Steamship Co.	484 "
433 " "	485 "
434 Capt. T. D. Howland.	486 "
435 Henry Smith.	487 "
436 Rotch Mills.	488 "
437 " "	489 "
438 Pierce Mills.	490 "
439 " "	491 Corner Chestnut and Parker
440 Bristol Mills.	streets.
441 " "	492 I. B. Tompkins. residence.
442 Jason Ballou.	493 Henry Richmond, residence.
443 Samuel Watson.	494 William McCann.
444 Columbia Mills.	495 Cleveland's bakery.
445 " "	496 Office.
446 Janitor Swain school.	497 Hedge & Lewis, button fac-
447 William Taylor.	tory.
448 A. A. Wood.	498 L. W. Hayes, stave mill.
449 Watchman at Chas. Taber's.	499 Ordway Chair Co.
450 House S. W. corner Water	500 Police.
and Middle street.	504 "
451 J. H. D. Brown's residence.	505 James H. Bamford.
452 William Taylor's residence.	506 J. F. Hoyer, 44 No. Water st.
453 B. Groves, 146 Union street.	507 J. J. Donaghy.
454 House 319 Belleville avenue.	508 T. B. Rowe, Jr.
455 Store N. W. cor. Belleville av.	509 H. C. Tripp.
and Coggeshall street.	510 Peter Crapo's stable.
456 Fortin Block, N. E. corner.	511 Store N. W. corner Purchase
457 Randall's lumber yard.	and Middle streets.
458 Paper Mill, Hastings' wharf.	512 W. A. Pease, residence over
459 A. D. Duval's store.	store.
460 Pope House, Acushnet ave.	513 City stable.
461 Marshall Greene, residence.	514 "
462 Martin Fichtenmeyer, res-	515 Stable N. E. corner Hillman
dence.	and Ash streets.
463 Store cor. Bonney and Rock-	516 Baylies' store, Water and
land streets.	Union streets.
464 Rotch Mills.	517 A. H. Potter's residence.
465 Samuel France, residence.	518 City Almshouse.
466 Rotch Mills.	519 "
467 Pierce Mills.	520 Theodore Baylies.
468 " "	521 Harry Tinkham.
469 Clarence Cook, residence.	522 D. D. Briggs.
470 Bristol Mills.	523 Mark H. McIntyre, Willis st.
471 " "	524 William A. Reed, County st.
472 Wilson & Knapp Casket Co.	525 Wheaton's, corner School and
473 Columbia Mills.	First streets.
474 " "	526 Manuel Joseph's store, Allen
475 Patnaude's store.	street.
476 E. Ryan, residence.	527 J. Savage, residence, Allen
477 Covell, druggist.	street.
478 Peter Sullivan, residence.	528 Chas. H. Gifford's residence,
479 N. E. cor. Sawyer and Acush-	County street.
net avenue.	529 Engineer of steamer No. 8.
480 Orville Cranston.	

530 F. W. Brightman.
531 Police.
532 "
533 Joseph Spooner.
534 Police.
535 "
536 "
537 "
538 "
539 "
540 "
541 "
542 "
543 "

544 Ellis Howland.
545 Police.
546 "
547 "
548 "
549 "
550 "
551 "
552 "
553 "
554 "
555 "
556 "
557 Engineer of steamer No. 5.

Location of Reservoirs.

Durfee street, southeast corner of Shawmut avenue.
Linden street, northeast corner of Ashland.
Franklin street, southwest corner of State.
Willis street, northeast corner of State.
Campbell street, west side of Purchase.
Smith street, southeast corner of Cypress.
Pleasant street, between Maxfield and Sycamore.
County street, southeast corner of Maxfield.
Pleasant street, southwest corner of North.
Chestnut street, between Mill and North.
Mill street, southwest corner of Purchase.
Kempton street, between Cypress and Cedar.
High street, near northeast corner of Foster.
Middle street, near southeast corner of Purchase.
Middle street, west of grammar school.
County street, front of M. E. church.
North Second street, northwest corner of William.
City Hall square, west of hall.
Court street, near head of Orchard.
Union street, southwest corner of County.
Union street, southeast corner of Fourth.
School street, northwest corner of Fourth.
South Second street, northwest corner of Walnut.
South Sixth street, northwest corner of Walnut.
Orchard street, east side, below Hawthorn.
Russell street, between County and South Sixth.
Acushnet avenue, southeast corner of Cannon.
Bedford street, southeast corner of Fifth.
South Sixth street, southwest corner of Wing.
Acushnet avenue, southeast corner of Grinnell.
Washington street, northeast corner of Crapo.

Location of Hydrants.

	Pressure in lbs.
Acushnet avenue, west side, 542 feet north of Tarkiln Hill road.	
Post.	54
Acushnet avenue, southwest corner Tarkiln Hill road. Post. . . .	55
Acushnet avenue, west side, south of Tarkiln Hill road 500 feet.	
Post.	54
Acushnet avenue, west side, south of Tarkiln Hill road 997 feet.	
Post.	53
Acushnet avenue, west side, north of North Belleville road 600	
feet. Post.	53
Acushnet avenue, west side, north of North Belleville road 6 feet.	
Post.	54
Acushnet avenue, west side, south of North Belleville road 601	
feet. Post.	55
Acushnet avenue, west side, north of Shaw 610 feet. Post. . . .	51
Acushnet avenue, northwest corner of Shaw. Post.	47
Acushnet avenue, west side, north of South Belleville road 603½	
feet. Post.	45
Acushnet avenue, west side, head of South Belleville road. Post. .	42
Acushnet avenue, northwest corner of Nash road. Post.	40
Acushnet avenue, northwest corner of Hathaway avenue. Post. .	40
Acushnet avenue, northwest corner of Davis. Post.	41
Acushnet avenue, southwest corner of Phillips avenue. Post. . .	39
Acushnet avenue, southwest corner of Dean. Post.	48
Acushnet avenue, west side, north of Sawyer 574½ feet. Post. . .	53
Acushnet avenue, southwest corner of Coggeshall. Post.	56
Acushnet avenue, southwest corner of Cedar Grove. Post. . . .	54
Acushnet avenue, west side, south of Logan 335 feet. Post. . . .	60
Acushnet avenue, west side, north of Wamsutta 514 feet. Double. .	62
Acushnet avenue, west side, north of Wamsutta 372 feet. Post. .	60
Acushnet avenue, west side, south of Wamsutta 255 feet.	63
Acushnet avenue, west side, at end of Wall street. Post.	62
Acushnet avenue, southeast corner of Pope.	64

	Pressure in lbs.
Acushnet avenue, northwest corner of Willis.	61
Acushnet avenue, west side, south of Campbell 179 feet.	59
Acushnet avenue, northwest corner of Maxfield.	57
Acushnet avenue, northwest corner of Kempton.	47
Acushnet avenue, northeast corner of Elm.	47
Acushnet avenue, northwest corner of School. Post.	51
Acushnet avenue, northwest corner of Madison. Post.	57
Acushnet avenue, northwest corner of Russell. Post.	58
Acushnet avenue, northwest corner of Bedford. Post.	60
Acushnet avenue, west side, opposite Howland.	61
Acushnet avenue, northwest corner of Potomska. Post.	50
Acushnet avenue, west side, north of Rivet 98 feet. Post.	59
Acushnet avenue, southwest corner of Blackmer.	60
Allen street, southeast corner of Bonney.	46
Allen street, northwest corner of Ward.	41
Allen street, north side, east of Page 159 feet.	38
Allen street, southwest corner of Page. Post.	36
Arch street, southwest corner of Union.	24
Armour street, southwest corner of Union. Post.	24
Arnold street, south side, west of Orchard 96 feet. Post.	22
Arnold street, southwest corner of Chancery.	33
Arnold street, southeast corner of Atlantic.	32
Arnold street, south side, 15.3 feet west of James. Post.	24
Ash street, northwest corner of Middle. Post.	27
Ash street, southwest corner of Morgan. Double.	25
Ash street, northwest corner of Arnold.	32
Ash street, northwest corner of Maple.	34
Ash street, northwest corner of Bedford. Post.	37
Ashland street, west side, head of Linden.	11
Ashland street, southwest corner of Clark. Post.	12
Atlantic street, west side, 186 feet south of Arnold. Post.	29
Atlantic street, southwest corner of Union. Post.	31
Austin street, southeast corner of State. Post.	42
Austin street, southwest corner of Purchase. Post.	56
Austin street, southeast corner of Cedar. Post.	19
Austin street, south side, on west line of Wilson. Post.	20

	Pressure in lbs.
Austin street, southwest corner of Ashland. Post.	15
Austin street, southeast corner of Shawmut avenue. Post.	14
Babbitt street, south side, 207.5 feet west of Dartmouth. Post.	42
Babbitt street, southeast corner of Field. Post.	37
Bedford street, southwest corner of Fifth. Post.	55
Bedford street, southeast corner of County.	47
Bedford street, southeast corner of Orchard.	37
Beech street, northwest corner of Kempton. Post.	18
Beetle street, southwest corner of Howard. Post.	55
Beetle street, southeast corner of Front. Post.	57
Belleville avenue, west side, 118 feet north of Washburn. Post.	63
Belleville avenue, northwest corner of Cedar Grove. Post.	62
Belleville avenue, southwest corner of Washburn. Post.	61
Belleville avenue, west side, 134 feet north of Coggeshall. Post.	62
Belleville avenue, northwest corner of Beetle. Post.	60
Belleville avenue, southwest corner of Coffin avenue. Post.	59
Belleville avenue, west side, 141 feet north of Phillips avenue. Post.	59
Blackmer street, south side, east of Front 575 feet. Post.	63
Bolton road, west side, 246 feet north of Rivet. Post.	50
Bolton road, west side, north of Rotch Mill No. 2. Post.	49
Bolton road, west side, south of Rotch Mill No. 2. Post.	49
Bolton road, west side, south of Rivet 1,027 feet. Post.	59
Bolton road, northwest corner of Poplar road. Post.	59
Bonney street, northwest corner of Grinnell. Post.	48
Bonney street, northwest corner of Rockland. Post.	54
Bonney street, west side, 259 feet north of Rivet. Post.	61
Borden street, southwest corner of Bay. Post.	42
Bowditch street, southwest corner of Weld. Post.	56
Bowditch street, west side, 313 feet south of Cedar Grove. Post.	55
Bowditch street, west side, north of Cedar Grove 244 feet. Post.	55
Bowditch street, west side, 406 feet south of Sawyer. Post.	52
Bridge avenue, north side, 44 feet west of draw.	62
Bridge avenue, south side, 11 feet west of draw.	62
Brownell street, west side, 294 feet south of Union. Post.	22
Bullock street, southwest corner of Trinity. Post.	14

	Pressure in lbs.
Campbell street, south side, east of County 163 feet.	28
Campbell street, south side, 216.5 feet west of County. Post. . .	25
Campbell street, southwest corner of Cottage. Post.	19
Campbell street, south side, east of Emerson 205 feet.	18
Campbell street, southwest corner of Purchase. Post.	49
Cannon street, south side, east of Second 164 feet. Post.	63
Cedar street, northwest corner of Elm. Double.	25
Cedar street, southwest corner of Kempton.	26
Cedar street, west side, north of Mill 75 feet.	23
Cedar street, southwest corner of Hillman.	23
Cedar street, northwest corner of Sycamore.	21
Cedar street, southwest corner of Campbell.	18
Cedar street, southwest corner of Parker.	19
Cedar Grove street, southeast corner of Front. Post.	60
Cedar Grove street, southeast corner of Howard. Post.	58
Cedar Grove street, south side, 383 feet west of Bowditch. Post.	57
Cedar Grove street, northwest corner of Purchase. Post.	56
Cedar Grove street, southwest corner of County. Post.	43
Cedar Grove street, south side, 183.5 feet west of County. Post. .	40
Centre street, south side, east of water 85 feet.	56
Chancery street, southwest corner of Maple. Post.	34
Chancery street, west side, north of Arnold 406 feet. Post. . . .	33
Chancery street, southwest corner of Elm. Post.	28
Chancery street, west side, south of Parker 176 feet. Post. . . .	24
Chancery street, west side, 263 feet north of Parker. Post. . . .	16
Cherry street, southeast corner of Seventh.	38
Chestnut street, southwest corner of North.	19
Chestnut street, west side, north of Campbell 96 feet.	22
Church street, southwest corner of Hathaway avenue. Post. . . .	33
Church street, west side, 591.4 feet north of Coffin avenue. Post.	36
Clark street, southwest corner of State. Post.	46
Clark street, south side, 170 feet west of County. Post.	40
Clay street, northwest corner of Columbia. Post.	44
Clinton street, south side, east of Orchard 125 feet.	26
Clinton street, south side, west of Ash 242.5 feet. Post.	44
Coffin avenue, southwest corner of North Purchase. Post. . . .	40

	Pressure in lbs.
Coffin avenue, south side, opposite Oneko lane. Post.	40
Coffin avenue, southeast corner of Bowditch. Post.	40
Coffin avenue, southeast corner of Front. Post.	50
Coffin avenue, south side, 1,337 feet east of Belleville avenue. Post.	63
Coffin street, north side, 262 feet east of Water. Post.	62
Coggeshall street, south side, 654 feet east of Mitchell. Post. . .	63
Coggeshall street, south side, 498 feet east of Mitchell. Post. . .	62
Coggeshall street, south side, 334 feet east of Mitchell. Post. . .	62
Coggeshall street, north side, 148 feet east of Mitchell. Post. . .	62
Coggeshall street, southeast corner of Belleville avenue. Post. . .	62
Coggeshall street, southwest corner of Front. Post.	61
Coggeshall street, southwest corner of Purchase. Post.	53
Coggeshall street, southeast corner of County. Post.	43
Coggeshall street, south side, 384 feet west of County. Post. . .	36
Collins street, southeast corner of Glover. Post.	15
Columbia street, southwest corner of Allen. Post.	40
Commercial street, north side, east of Front 82 feet. Post. . . .	62
Cottage road, south side, 435 feet west of Bolton road. Post. . .	55
Cottage street, southwest corner of Bay. Post.	43
Cottage street, northwest corner of Allen.	42
Cottage street, northwest corner of Bedford.	37
Cottage street, northwest corner of Hawthorn.	31
Cottage street, southwest corner of Arnold.	23
Cottage street, southwest corner of Union.	22
Cottage street, southwest corner of Kempton. Post.	22
Cottage street, northwest corner of Hillman. Post.	20
Cottage street, northwest corner of Sycamore. Post.	20
Cottage street, northwest corner of Parker. Post.	23
Cottage street, west side, 237 feet north of Locust. Post. . . .	20
Cottage street, west side, 92 feet south of Austin. Post.	17
County street, west side, 200 feet north of Coggeshall. Post. . .	44
County street, southeast corner of Penniman. Post.	44
County street, west side, 234½ feet south of Clark. Post. . . .	43
County street, west side, 115 feet south of Weld. Post.	42
County street, southwest corner of Austin. Post.	33
County street, northwest corner of Locust. Post.	24

	Pressure in lbs.
County street, northwest corner of Parker.	23
County street, southwest corner of Smith. Post.	30
County street, southwest corner of Maxfield.	25
County street, southwest corner of North.	21
County street, southwest corner of Middle. Double.	22
County street, southwest corner of Morgan. Post.	22
County street, northwest corner of Union.	24
County street, west side, head of school.	27
County street, northwest corner of Madison.	32
County street, southwest corner of Hawthorn.	36
County street, northwest corner of Allen.	49
County street, southwest corner of Grinnell. Post.	61
County street, northwest corner of South. Post.	62
County street, northwest corner of Winsor. Post.	57
County street, west side, 71 feet north of Division. Post.	54
County street, northwest corner of Cove road. Post.	62
Court street, southwest corner of Orchard.	22
Court street, south side, opposite Cedar.	23
Court street, northeast corner of Ash. Post.	20
Court street, south side, opposite Emerson.	26
Court street, south side, west from Park 304 feet.	32
Court street, south side, head of Jenney. Post.	23
Court street, south side, east of Reed 300 feet. Post.	22
Cove road, southwest corner of Shore street. Post.	61
Cove road, south side, 365 feet west of County. Post.	61
Cove street, southwest corner of Cleveland avenue. Post.	61
Cove street, southwest corner of Harrison avenue. Post.	61
Cove street, southwest corner of Salisbury. Post.	59
Cove street, southwest corner of Viall. Post.	59
Cove street, southwest corner of McGurk. Post.	59
Cove street, south side, west of Water 334½ feet. Post.	60
Cove street, southeast corner of County. Post.	72
Crapo street, west side, south of Washington 343 feet.	60
Crapo street, west side, south of Rockland 225 feet.	63
Crapo street, west side, 160 feet south of Thompson. Post.	58
Dartmouth street, east side, southwest of Orchard 110 feet. Post.	46

Pressure
in lbs.

Dartmouth street, east side, 125 feet south of Hickory. Post. . .	47
Dartmouth street, east side, 260 feet south of Rockland. Post. . .	45
Dartmouth street, east side, 99 feet south of Thompson. Post. . .	44
Dartmouth street, southeast corner of Larch. Post.	42
Dartmouth street, east side, 28 feet north of Dunbar. Post. . . .	43
Davis street, south side, 321.8 feet east of Front. Post.	50
Davis southwest corner of Front. Post.	46
Dean street, southwest corner of Belleville avenue. Post.	62
Dean street, southeast corner of Front. Post.	50
Delano street, southwest corner of Water. Post.	57
Delano street, southeast corner of Acushnet avenue. Post. . . .	57
Division street, southeast corner of Second. Post.	61
Division street, south side, 527 feet west of County. Post. . . .	62
Division street, south side, east of Crapo 6 feet. Post.	58
Durfee street, southwest corner of Cedar. Post.	15
Durfee street, southwest corner of Bullock. Post.	17
Durfee street, southwest corner of Shawmut avenue. Post. . . .	12
East French avenue, northwest corner of Columbia avenue. Post.	61
Elm street, southwest corner of Purchase. Post.	43
Elm street, southwest corner of Pleasant.	38
Elm street, southwest corner of Summer.	18
Elm street, south side, 43.5 feet west west of Florence. Post. . .	26
Elm street, southeast corner of Palmer. Post.	14
Emerson street, west side, 173.8 feet north of Arnold. Post. . . .	29
Field street, northwest corner of Stowell. Post.	37
Fifth street, southwest corner of Union. Post.	41
Fifth street, southwest corner of School. Post.	45
Fifth street, west side, south of Madison 245 feet.	50
Fifth street, northwest corner of Wing. Post.	59
Fifth street, northwest corner of Grinnell.	61
First street, southwest corner of Spring.	58
First street, west side, south of School 109 feet.	57
First street, west side, south of Howland 185 feet.	65
First street, northwest corner of Potomska. Post.	59
Florence street, west side, north of North 180 feet. Post. . . .	26
Florence street, northwest corner of Mill. Post.	24

Pressure
in lbs.

Florence street, west side, 199.6 feet south of Kempton. Post.	27
Florence street, southwest corner of Morgan. Post.	29
Forest street, south side, west of County 90 feet.	53
Foster street, southwest corner of Maxfield.	37
Foster street, northwest corner of High.	33
Fourth street, southwest corner of Union.	46
Fourth street, west side, north of School 106 feet.	46
Fourth street, west side, south of Madison 210 feet.	54
Fourth street, east side, opposite Washington. Post.	57
Fourth street, northwest corner of Rockland.	62
Fourth street, west side, south of Potomska 61 feet. Post.	58
Franklin street, southwest corner of Pleasant.	43
Franklin street, southwest corner of State. Post.	38
French avenue, west side, south of Cove road 14 feet.	60
Front street, southwest corner of Holly. Post.	56
Front street, west side, south of Washburn 319 feet.	62
Front street, southwest corner of Logan. Post.	60
Front street, west side, 190.2 feet south of Logan. Post.	62
Front street, west side, south of Logan 333 feet. Post.	63
Front street, west side, 235 2 feet north of Wamsutta. Post.	63
Front street, southeast corner of Wamsutta. Post.	63
Front street, southwest corner of Middle. Post.	62
Front street, southwest corner of Hazard's lane.	61
Front street, northwest corner of Rodman. Post.	61
Front street, southwest corner of Centre.	61
Front street, west side, south of Commercial 86 feet.	63
Front street, northwest corner of lane head of Merrill's wharf.	65
Front street, west side, south of Howland 268 feet. Post.	61
Front street, southwest corner of Grinnell. Post.	62
Front street, west side, south of South 330 feet. Post.	62
Front street, west side, 191 feet north of Blackmer. Post.	59
Front street, west side, north of Delano 191 feet. Post.	62
Fruit street, south side, east of Hemlock 126.5 feet. Post.	53
Fruit street, south side, 25.5 feet west of Mulberry. Post.	46
Gifford street, south side, 274 feet east of Water. Post.	65
Gifford street, south side, 167.8 feet west of Harbor. Post.	60

Pressure
in lbs.

Gifford street, south side, 299.3 feet east of Harbor. Post.	62
Grand street, south side, 750 feet west of Shawmut avenue. Post.	14
Granfield street, west side, 263 feet north of Coggeshall. Post.	59
Grape street, south side, west of Lewis 131 feet. Post.	36
Grape street, southwest corner of Small. Post.	35
Grape street, southwest corner of Devoll. Post.	29
Griffin, southwest corner of Second.	62
Grinnell street, south side, west of Acushnet avenue 76 feet.	60
Grinnell street, south side, east of Crapo 103 feet.	58
Grinnell street, southwest corner of Orchard. Post.	50
Grove street, southwest corner of Anthony.	32
Harbor street, east side, 195 feet north of Cove. Post.	60
Harbor street, east side, 372 feet north of Cove. Post.	60
Harbor street, east side, 540 feet north of Cove. Post.	60
Harbor street, east side, 195.8 feet south of Gifford. Post.	61
Harbor street, southeast corner of Gifford. Post.	61
Harmony street, southwest corner of Social. Post.	59
Harrison street, southwest corner of Hickory. Post.	48
Hathaway avenue, south side, 233.4 feet east of Church. Post.	33
Hawthorn street, southeast corner of Page.	28
Hawthorn street, south side, east of Tremont 147 feet. Post.	28
Hawthorn street, southwest corner of Brigham. Post.	26
Hawthorn street, south side, 301 feet west of Brigham. Post.	24
Hazard street, south side, west of State 140 feet.	36
Hazard street, southwest corner of Pleasant.	46
Hemlock street, west side, 231 feet south of Rockland. Post.	50
Hicks street, south side, east of Acushnet avenue 276 feet. Post.	56
High street, south side, east of Acushnet avenue 43 feet.	48
High street, southwest corner of Purchase. Post.	42
High street, south side, east of County 177 feet.	23
Highland street, west side, 418.4 feet north of Durfee. Post.	12
Hillman street, southwest corner of Second.	57
Hillman street, southwest corner of Purchase. Post.	45
Hillman street, southeast corner of Hill.	32
Hillman street, southwest corner of Chancery. Post.	29
Holly street, southwest corner of Belleville avenue. Post.	61

Pressure
in lbs.

Holly street, southwest corner of Bowditch. Post.	48
Holly street, southeast corner of Brook. Post.	47
Hollyhock street, south side, 133 feet east of Field. Post.	40
Howard avenue, south side, 364 feet east of Acushnet avenue. Post.	52
Howland street, northeast corner of Second.	63
Howland street, south side, 19.2 feet west of Prospect. Post. . .	60
Hunter street, west side, 167 feet north of North. Post.	24
Independence street, south side, 480 feet west of County. Post. .	57
Irving court, north end of court.	25
James street, west side 107 feet north of Arnold. Post.	24
James street, southwest corner of Court. Post.	24
Katharine street, south side, 66.7 feet east of Crapo. Post. . . .	62
Kempton street, southwest corner of Pleasant. Post.	36
Kempton street, south side, opposite Hill.	28
Kempton street, southwest corner of Summer.	19
Kempton street, southwest corner of Emerson.	26
Kempton street, southwest corner of Park.	28
Kempton street, southwest corner of Liberty.	29
Kempton street, southeast corner of Jenney.	26
Kempton street, south side, west of Hunter 50 feet. Post.	21
Kempton street, southwest corner of Francis. Post.	14
Kilburn street, north side, east of Front 244 feet. Post.	62
Kilburn street, north side, east of Front 581 feet. Post.	64
Larch street, south side, 120 feet east of Mulberry. Post.	45
Larch street, south side, 129 feet east of Hemlock. Post.	51
Liberty street, west side, south of Kempton 339 feet.	30
Lincoln street, west side, south of Union 171 feet.	23
Linden street, south side, west of State 13½ feet. Post.	43
Linden street, south side, west of County 169 feet. Post.	34
Linden street, south side, 67½ feet west of Reynolds. Post. . . .	24
Linden street, south side, 6½ feet east of Ashland. Post.	14
Lindsey street, west side, 173 feet south of Kempton. Post. . . .	27
Lindsey street, northwest corner of Morgan. Post.	24
Locust street, southwest corner of Chestnut. Post.	23
Locust street, southeast corner of Richmond. Post.	15

	Pressure in lbs.
Logan street, south side, east of Acushnet avenue 400 feet.	62
Logan street, southwest corner of Acushnet avenue.	63
Lombard street, west side, 209½ feet south of Rockland. Post. . .	50
Madison street, southwest corner of First.	61
Madison street, southwest corner of Sixth. Post.	41
Maitland street, southwest corner of Cedar. Post.	19
Maitland street, south side, 101 feet west of Richmond. Post. . .	16
Maxfield street, southwest corner of Second. Post.	58
Maxfield street, southwest corner of Purchase. Post.	46
Maxfield street, southwest corner of Pleasant. Post.	38
Maxfield street, southeast corner of Chestnut.	19
Maxfield street, southeast corner of Spruce.	21
Maxfield street, southeast corner of Ash. Post.	22
Maxfield street, south side, 44.4 feet east of Chancery. Post. . .	27
McGurk street, west side, 348 feet north of Middle Point road. Post.	55
Mechanics lane, northwest corner of Purchase. Post.	42
Mechanics lane, north side, east of Eighth 206 feet.	30
Merrimac street, southwest corner of State. Post.	41
Middle street, southwest corner of Second. Post.	52
Middle street, southwest corner of Acushnet avenue. Post. . . .	46
Middle street, southwest corner of Purchase.	42
Middle street, southeast corner of Sixth. Double.	36
Middle street, south side, east of Cedar 371 feet.	32
Middle street, southeast corner of Chancery.	29
Mill street, northwest corner of Purchase. Post.	43
Mill street, south side, west of Hill 191 feet.	25
Mill street, south side, west of Ash 45 feet.	25
Mill street, southeast corner of Newton. Post.	26
Mill street, south side, 138 feet west of Hunter. Post.	18
Mill street, south side, 97.9 feet west of Beech. Post.	14
Mitchell street, northwest corner of Coggeshall. Post.	61
Mitchell street, west side, 178.8 feet north of Coggeshall. Post. .	63
Mitchell street, west side, 345 feet south of Sawyer. Post. . . .	61
Mitchell street, southwest corner of Sawyer. Post.	61
Morgan street, southwest corner of Cottage.	33

Pressure
in lbs.

Morton's court, west side, 385.3 feet north of Cove. Post.	59
Mosher street, south side, west of County 517 feet. Post.	59
Mt. Pleasant street, southeast corner of distributing reservoir. . . .	4
Mt. Pleasant street, west side, north of Durfee 572 feet.	8
Mt. Pleasant street, northwest corner of Durfee. Post.	12
Mt. Vernon street, south side, 359 feet west of Mt. Pleasant. . . .	6
Myrtle street, west side, 22 feet south of Weld. Post.	23
Myrtle street, west side, 35 feet south of Clark. Post.	23
Nelson street, south side, 541.6 feet west of County. Post. . . .	60
Newton street, northwest corner of Elm. Post.	29
North street, southeast corner of Second. Post.	54
North street, southwest corner of Acushnet avenue. Post. . . .	49
North street, southwest corner of Purchase. Post.	44
North street, northwest corner of Pleasant. Post.	35
North street, southwest corner of Foster.	35
North street, southwest corner of Park. Post.	29
North street, southeast corner of Newton. Post.	32
North street, southwest corner of Hunter. Post.	22
North street, southwest corner of Beech. Post.	17
Nye street, southwest corner of Belleville avenue. Post. . . .	60
Nye street, southwest corner of Front. Post.	54
Oak street, southwest corner of Harrison. Post.	45
Oak street, northwest corner of Grape. Post.	41
Oak street, southwest corner of Allen. Post.	38
Ocean street, west side, 184½ feet south of Arnold. Post. . . .	32
Old Point road, west side, east of French avenue 650 feet. . . .	53
Old Point road, west side, 2,510 feet east of McGurk.	43
Orchard street, west side, head of Madison.	27
Orchard street, southwest corner of Grove. Post.	34
Page street, west side, 429½ feet south of Hawthorn. Post. . . .	36
Palmer street, west side, 113 feet south of Court. Post.	19
Park place, south side, west of Sixth 306 feet.	32
Park street, west side, 27.1 feet south of Maxfield. Post. . . .	24
Park street, southwest corner of Hillman. Post.	25
Park street, west side, south of Kempton 339 feet. Post. . . .	27
Park street, northwest corner of Court. Post.	28

	Pressure in lbs.
Park street, west side, north of Arnold 263 feet. Post.	34
Parker street, south side, at Oak Grove cemetery. Post.	25
Parker street, southwest corner of Summer.	27
Pearl street, southwest corner of Pleasant. Post.	41
Pearl street, southwest corner of Purchase. Post.	50
Pine street, southwest corner of Purchase. Post.	65
Pleasant street, northwest corner of Market. Post.	40
Pleasant street, west side, north of William 21½ feet. Post. . . .	40
Pleasant street, east side, foot of Sycamore. Post.	39
Pleasant street, northwest corner of Pope.	42
Pleasant street, northwest corner of Austin.	47
Pleasant street, southwest corner of Linden.	48
Pleasant street, southwest corner of Weld. Post.	48
Pope street, south side, opposite North Oak.	32
Pope street, south side, 226 feet east of Chestnut. Post.	21
Poplar road, south side, 431 feet west of Bolton road. Post. . .	52
Potomska street, a group of three post hydrants located about 300 feet east of Prospect and 91 feet north of south line of Potom- ska street.	64
Prospect street, west side, 275.2 feet north of Grinnell. Post. . .	61
Prospect street, northwest corner of Grinnell. Post.	63
Prospect street, west side, north of Potomska 324½ feet. Post . .	62
Prospect street, northwest corner of Potomska. Post.	63
Purchase street northwest corner of Dean. Post.	43
Purchase street, west side, opposite Onoko Mill. Post.	48
Purchase street, east side, opposite Clark. Post.	58
Purchase street, west side, opposite Logan.	58
Purchase street, northwest corner of Merrimac. Double.	51
Purchase street, northwest corner of Pope.	52
Purchase street, west side, 348 feet south of Campbell. Post. . .	48
Purchase street, northwest corner of Union.	43
Reed street, west side, 145 feet north of Court. Post.	19
Reed street, west side, 25 feet north of Elm. Post.	15
Reed street, west side, 293 feet south of Kempton. Post.	18
Reynolds street southwest corner of Weld. Post.	26
Reynolds street, west side, 17.9 feet south of Clark. Post. . . .	29

Pressure
in lbs.

River street, southwest corner of Belleville avenue. Post.	60
River street, southeast corner of Front. Post.	53
Riverside avenue, west side, 155 feet north of Coffin avenue. Post.	63
Rivet street, southwest corner of Second.	62
Rivet street, southwest corner of County. Post.	59
Rivet street, southwest corner of Bonney. Post.	59
Rivet street, southwest corner of Hemlock. Post.	51
Rivet street, southeast corner of Bolton road. Post.	56
Robeson street, southwest corner of County. Post.	26
Robeson street, southeast corner of Cottage. Post.	19
Robeson street, southwest corner of Ashland. Post.	15
Robeson street, southeast corner of Cedar. Post.	21
Robeson street, south side, 424 feet west of Cedar. Post.	17
Rockdale avenue, southwest corner of Bolton road. Post.	57
Rockdale avenue, south side, 327 feet west of Bolton road. Post.	54
Rockland street, southwest corner of County. Post.	58
Rockland street, southeast corner of Hall. Post.	56
Rockland street, south side, 13 feet west of Orchard. Post.	54
Rockland street, south side, 179.3 feet east of Hemlock. Post.	51
Rockland street, southwest corner of Lombard. Post.	50
Rounds street, northwest corner of Elm. Post.	22
Rural street, southwest corner of Allen. Post.	28
Russell street, south side, east of Fifth 92 feet.	54
Russell street, southwest corner of Sixth. Post.	47
Russell street, south side, 179 feet west of Sixth. Post.	42
Salisbury street, west side, 598 feet south of Cove. Post.	53
Sawyer street, southwest corner of Bowditch. Post.	53
Sawyer street, southwest corner of Acushnet avenue. Post.	59
Sawyer street, southeast corner of Belleville avenue. Post.	65
Sawyer street, north side, 750 feet east of Belleville avenue. Post.	63
Sawyer street, south side, 418.8 feet east of Mitchell. Post.	64
School street, southwest corner of Sixth. Post.	37
Scott street, south side, 325 feet west of County. Post.	59
Second street, northwest corner of Mill.	55
Second street, west side, south of Elm 52 feet. Post.	52
Second street, west side, south of Spring 74 feet.	55

	Pressure in lbs.
Second street, northwest corner of Coffin.	61
Second street, west side, at head of Morgan's lane. Post.	60
Second street, west side, north of Grinnell 61 feet.	63
Second street, west side, north of Potomska 232 feet. Post.	61
Second street, west side, south of Potomska 122 feet. Post.	63
Second street, west side, 188 feet south of Blackmer. Post.	59
Seventh street, southwest corner of Union. Post.	31
Seventh street, west side, north of Madison 50 feet.	36
Shawmut avenue, southwest corner of Willis. Post.	18
Shawmut avenue, southwest corner of Parker. Post.	18
Shawmut avenue, west side, head of Locust. Post.	17
Shawmut avenue, southwest corner of Robeson. Post.	14
Shawmut avenue, west side, north of Austin. Post.	13
Shawmut avenue, west side, 497 feet north of Durfee. Post.	12
Shawmut avenue, southwest corner of Grand. Post.	11
Shawmut avenue, west side, 203 feet north of Grand. Post.	11
Sherman street, south side, west of County 314 feet.	51
Shore street, west side, 264 feet south of Cove road. Post.	61
Short street, west side, 321 feet south of Allen. Post.	34
Sisson street, northwest corner of Union. Post.	25
Sixth street, west side, north of Grinnell 194 feet. Post.	60
Smith street, southwest corner of Chestnut. Double.	22
Smith street, southeast corner of Spruce. Double.	20
Smith street, southeast corner of Shawmut avenue.	22
Smith street, south side, east of Park 5 feet. Post.	29
South street, southwest corner of Acushnet avenue. Post.	57
South street, southwest corner of Second. Post.	59
South street, southwest corner of First. Post.	59
South street, southwest corner of Water. Post.	63
South street, southwest corner of Prospect. Post.	61
Spring street, southeast corner of Acushnet avenue. Post.	51
Spring street, southwest corner of Seventh.	32
Spring street, southeast corner of Fifth.	42
Spruce street, west side, 347 feet north of Parker. Post.	21
State street, northwest corner of Sycamore.	35
State street, southwest corner of Pearl.	34

Pressure
in lbs.

Stone street, west side, 208.6 feet south of Allen. Post.	38
Summer street, northwest corner of North.	16
Summer street, northwest corner of Hillman.	16
Summer street, southwest corner of Willis.	26
Sycamore street, southwest corner of Thomas.	30
Sycamore street, southwest corner of Summer.	24
Sycamore street, south side, west of Ash 68 feet.	22
Tallman street, southwest corner of Belleville avenue. Post.	61
Thomas street, northwest corner of Hillman.	24
Thompson street, southeast corner of Bourne. Post.	44
Thompson street, south side, 20 feet east of Hall. Post.	58
Thompson street, south side, 302 feet west of Bonney. Post.	55
Thompson street, southwest corner of County. Post.	59
Tremont street, southwest corner of Union. Post.	26
Tremont street, northwest corner of Maple. Post.	29
Trinity street, south side, 145 feet west of Cedar. Post.	19
Union street, southwest corner of Front. Post.	63
Union street, southwest corner of Water. Post.	57
Union street, southwest corner of First. Post.	56
Union street, southwest corner of Second. Post.	52
Union street, southwest corner of Acushnet avenue. Post.	48
Union street, southwest corner of Sixth. Post.	38
Union street, southeast corner of Emerson. Post.	28
Union street, south side, 344 feet west of Park. Post.	28
Viall street, west side, 188 feet south of Cove. Post.	59
Walden street, southwest corner of Maxfield.	31
Wall street, south side, east of Acushnet avenue 165 feet.	62
Walnut street, northwest corner of Front. Post.	61
Walnut street, southwest corner of Second.	57
Walnut street, southeast corner of Fourth. Double.	51
Walnut street, southwest corner of Seventh. Post.	38
Wamsutta street, south side, west of Front 200 feet. Post.	65
Wamsutta street, south side, west of Front 372 feet. Post.	65
Wamsutta street, south side, east of Acushnet ave. 285 feet. D'ble.	64
Ward street, southwest corner of Bay. Post.	44
Washburn street, southeast corner of Acushnet avenue. Post.	59

	Pressure in lbs.
Washburn street, south side, west of North Front 228 feet. Post.	59
Washington street, southwest corner of County. Post.	57
Washington street, southwest corner of Crapo. Post.	56
Washington street, south side, west of Orchard 102 feet.	50
Washington street, southeast corner of Dartmouth.	46
Water street, southwest corner of Hillman.	65
Water street, southwest corner of North. Post.	64
Water street, west side, south of North 258 feet.	63
Water street, northwest corner of Middle. Double.	62
Water street, southwest corner of Elm.	60
Water street, west side, north of Centre 46 feet.	50
Water street, west side, north of School 22 feet.	60
Water street, northwest corner of Walnut.	61
Water street, northwest corner of City wharf.	62
Water street, northwest corner of Coffin.	64
Water street, west side, head of Pine. Post.	67
Water street, west side, head of Leonard. Post.	62
Water street, southwest corner of Howland. Post.	60
Water street, northwest corner of Grinnell. Post.	60
Water street, northwest corner of Potomska. Post.	63
Water street, west side, 266 feet south of Potomska. Post. . . .	63
Water street, northwest corner of Rivet. Post.	63
Water street, southwest corner of Blackmer. Post.	63
Water street, northwest corner of Delano. Post.	62
Water street, west side, head of Gifford. Post.	62
Water street, northwest corner of Cove. Post.	62
Weld street, southwest corner of State. Post.	43
William street, southwest corner of Bethel. Post.	51
William street, southwest corner of Second. Post.	48
William street, southeast corner of Acushnet avenue. Post. . . .	47
William street, southwest corner of Purchase. Post.	43
William street, southwest corner of Sixth. Post.	38
William street, southwest corner of Eighth.	26
Willis street, southwest corner of Purchase. Post.	50
Willis street, southeast corner of Pleasant. Post.	41
Willis street, southwest corner of State.	32

	Pressure in lbs.
Willis street, southwest corner of County. Post.	26
Willis street, southwest corner of Cottage. Post.	19
Willis street, south side, west of Cedar 200 feet.	18
Willow street, south side, 305.1 feet east of Cedar. Post. . . .	16
Willow street, southeast corner of Shawmut avenue. Post. . . .	13
Wing street, southwest corner of Fourth.	57
Wing street, southwest corner of Sixth. Post.	57
Winsor street, south side, west of County 455½ feet. Post. . . .	58
Winsor street, south side, 77½ feet east of Crapo. Post.	60
Number of flush hydrants,	172
Number of post hydrants,	435
	—
Total number of hydrants,	607

IN BOARD OF ALDERMEN,

May 9, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

5 mo., 9, 1895.

Concurred.

WILLIAM A. MACKIE, Clerk.

1894—CITY DOCUMENT No. 6.

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF NEW BEDFORD,

TOGETHER WITH THE

Superintendent's Annual Report,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

IN SCHOOL COMMITTEE,

January 3, 1895.

Voted, That the Secretary prepare the Annual Report of the School Board for the year 1894, and that 1,500 copies of the same be printed.

Report of the Secretary.

By direction of the School Committee, I submit to our fellow citizens the following report for the year 1894 :

STATISTICS.

I. POPULATION AND VALUATION.

The population of the city (census of 1880) was	26,875
The population of the city (census of 1890) was	40,705
Estimated population of the city (Dec. 31, 1894,) is	55,000
Valuation of taxable property (1894) is	\$51,434,925

II. SCHOOL CENSUS.

School census, May, 1893 (children between five and fifteen years of age),	9,466
School census, May, 1894 (children between five and fifteen years of age),	9,665
Increase during the year (children between five and fifteen years of age),	199

SCHOOL CENSUS BY WARDS.

	1893.	1894.	
Ward One,	3,280	3,428	148 increase.
Ward Two,	784	727	57 decrease.
Ward Three,	741	726	15 decrease.
Ward Four,	499	509	10 increase.
Ward Five,	827	849	22 increase.
Ward Six,	3 335	3,426	91 increase.
	<hr/> 9,466	<hr/> 9,665	

LOCATION OF CHILDREN BETWEEN FIVE AND FIFTEEN YEARS OF AGE AS REPORTED BY THE CENSUS OFFICERS.

	Attending Public Schools.	Attending Private or Parochial Schools.	Attending no School.
Ward One,	1,229	1,642	557
Ward Two,	457	178	92
Ward Three,	605	44	77
Ward Four,	411	34	64
Ward Five,	593	151	105
Ward Six,	2,268	666	492
	<hr/> 5,563	<hr/> 2,715	<hr/> 1,387

It is very evident from the school census of 1894 that the depression in business not only retarded the growth of population of the city, but also sent children into the public schools who had been at work and others who had been attending private and parochial schools.

While the increase in the number of children in the city from the time the census was taken in 1892 to the time it was taken in 1893 was 861, for the same time between 1893 and 1894 it was only 199,—a difference of 662. The returns show also 209 decrease in the number of pupils not attending any school, 37 increase in the number reported as attending private and parochial schools, and 371 increase in the number reported as attending the public schools.

It appears, then, that in times of depression some of the children who have been thrown out of employment re-enter the schools, and others go to the public schools who in a period of prosperity would go to private or parochial schools.

The school census was taken in May by five census-takers, several of whom have performed this duty for several years, and the data secured by them is without doubt very accurate. Their reports furnish no data, how-

ever, by which to verify the enrollment of pupils, and indeed cannot be made to do so.

It may seem strange that each year so many pupils are reported who are attending no school. These pupils are of two classes: first, those between the ages of five and eight who are not compelled by law to attend school, and whose parents do not enter them; second, those who have completed their school time after becoming thirteen years old. There may be a very small number who evade the laws in relation to attendance at school, but few such escape the notice of some of the school authorities.

III. SCHOOL ORGANIZATION.

High,	1
Training school for teachers,	1
Grammar,	5
Primary,	12
Country,	5
Mill,	2
	—
	26

IV. SCHOOL BUILDINGS.

Occupied by the schools,	22
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ROOMS USED FOR SCHOOL PURPOSES (DAY SCHOOLS), INCLUDING HALLS AND RECITATION ROOMS.

High,	17
Training,	9
Grammar,	42
Primary,	75
Mill,	4
Country,	8
Manual training,	2
Rooms unoccupied,	8
	—
Total,	165

Rooms used for both day and evening schools,	27
Rooms used for evening drawing schools,	3

V. SEATS.

	Seats occupied.	Seats unoccupied.
High school,	358	27
Grammar schools,	1,594	239
Primary schools,	3,326	385
Training school,	325	47
Mill schools,	110	46
Country schools,	216	68
Total,	5,929	812

VI. TEACHERS.

Whole number in service, Dec. 21, 1894:

High school,	13
Training school,	10
Grammar schools,	42
Primary schools,	78
Country schools,	7
Mill schools,	4
Special teachers,	7
Temporary assistants,	1
Evening schools,	61
Total,	223

VII. PUPILS.

DAY SCHOOLS, 1894.

Whole number of pupils enrolled of all ages,	7,426
Average number of pupils belonging,	5,751
Average daily attendance,	5,270
Per cent. of attendance,	91.8
Number of half-days absence,	176,508
Number cases of tardiness,	15,893
Number cases of dismissal,	31,950
Number cases of truancy reported by teachers,	245
Number cases of corporal punishment,	906
Number cases of suspension,	18
Half-days absence of teachers,	1,305
Number cases of tardiness by teachers,	157
Number visits made the schools by the Superintendent,	516
Number visits made the schools by the School Committee,	451
Number visits made the schools by parents and others,	4,410

EVENING SCHOOLS, 1894.

Whole number pupils enrolled,	1,958
Average number belonging,	1,132.5
Average nightly attendance,	912.1
Per cent. of attendance,	80.5
Total nights absence,	6,711
Number of cases tardiness,	326
Number visits by Superintendent,	24
Number visits by School Committee,	57

EVENING DRAWING SCHOOL, 1894.

Whole number pupils enrolled,	138
Average number belonging,	71
Average nightly attendance,	59.4
Per cent. of attendance,	83.7
Number visits made by the Superintendent,	3
Number visits made by School Committee,	4

COST OF INSTRUCTION PER SCHOLAR BY SCHOOLS.

In this connection the cost of instruction per scholar is based upon the average number belonging to each school during the year, and the amount expended for hire of teachers, fuel, care of school houses, books and supplies (except those furnished from the income of the Sylvia Ann Howland fund), the term "care of school houses" including only the salaries of janitors.

Elsewhere in the report is given the cost, by departments, of each pupil, based on the average number belonging and the total amount expended for the maintenance of each department during the year. This last computation furnishes the basis upon which tuition of non-residents will be collected.

TABLE I. This table is computed, as in former Reports, on the items classified above.

The cost of maintenance of each pupil in the High school for the year has been	\$54.84
Grammar department:	
Fifth Street,	27.13
Middle Street,	28.04

Parker Street,	\$25.68
Thompson Street,	24.11
Cedar Grove Street,	19.95
Harrington Training,	25.30

Primary department :

Harrington Training,	28.92
Acushnet Avenue,	19.63
I. W. Benjamin,	17.20
Cedar Street,	18.71
Cedar Grove Street,	17.15
Cannonville,	23.19
Dartmouth Street,	16.86
Fourth Street,	28.13
S. A. Howland,	23.39
Linden Street,	18.73
Merrimac Street,	21.32
Maxfield Street,	25.38
Thompson Street,	15.68

Ungraded schools :

Acushnet,	32.32
Clark's Point,	33.58
North,	22.69
Plainville,	44.59
Rockdale,	32.17
North Mill,	37.57
South Mill,	22.16

Evening schools :

Cedar Grove Street,	3.74
Fifth Street,	3.35
Merrimac Street,	3.76
Parker Street,	5.06
Thompson Street,	3.54
Evening Drawing,	9.44

The average cost of a—

Grammar school pupil was	\$26.12
Primary school pupil was	20.21
Ungraded school pupil was	30.96
Mill school pupil was	27.87
Elementary evening school pupil was	3.73
Evening drawing school pupil was	9.44
The average cost of a day school pupil was	25.23

TABLE II. The average cost per pupil by departments, based on the average number belonging and the total expenditures for each department, was as follows :—

High school,	\$56.21
Grammar schools,	26.26
Primary schools,	20.93
Ungraded schools,	34.67
Evening elementary schools,	3.73
Evening drawing school,	9.44
Average cost of a day school pupil,	\$25.41
Average cost of an evening school pupil, including drawing school,	4.06

RECEIPTS AND EXPENDITURES FOR 1894.

RECEIPTS.

General and special appropriations as follows :

For teachers' salaries,	\$103,480.00
Incidentals (including salaries of officers and janitors, books, supplies, etc.),	30,720.00
Fuel,	5,160.00
Repairs of buildings,	5,640.00
Special appropriations :	
Fuel,	1,500.00
Fitting and furnishing rooms at Fourth street and Acushnet avenue,	5,800.00
Balance of cooking school appropriation, 1893,	38.90
Balance of manual training school appropriation, 1893,	988.43
	<hr/>
	\$153,327.33

EXPENDITURES.

For teachers' salaries :

Day schools,	\$98,961.99
Evening schools,	3,377.50
	\$102,339.49
For incidentals :	
Salaries of officers, including truant officers and messenger,	5,554.79
Salaries of janitors, day and evening schools,	11,651.95
Books and supplies,	5,646.85
Heating apparatus,	1,170.95

Miscellaneous (including rent of school committee rooms and other rooms used for school purposes, lighting evening schools, janitors' supplies, school furniture, etc.),	\$6,720.34
For fitting and furnishing rooms at Fourth street and Acushnet avenue,	5,432.37
For repairs of buildings,	5,140.55
For cooking school,	38.90
For manual training school,	752.97
For fuel,	6,336.43
	<hr/>
	\$150,785.59

Summary:

Receipts,	\$153,327.33
Expenditures,	150,785.59

DOG FUND.

Balance, Jan. 1, 1894,	\$3,306.28	
Received, Feb., 1894,	1,337.59	\$4,643.87
Expenditures for 1894,		1,011.67
		<hr/>
Balance,		\$3,632.20
Received from non-resident pupils, which has been paid to the City Treasurer, and placed to account of unappropriated funds,		\$968.04
Received from books and supplies,		26.41
Received from sale of stoves at William street,		28.00
Received from sale of moulding table,		10.53
Received from G. A. Bobrick, for school furniture,		7.63
		<hr/>
		\$1,040.61

SYLVIA ANN HOWLAND EDUCATIONAL FUND.

Balance of income on hand, Jan. 1, 1894,	\$207.25
Interest for the year,	3,000.00
	<hr/>
	\$3,207.25
Expenditures for the year,	3,190.25
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Balance, Jan 1, 1895,	\$17.00
Cost of books and supplies during 1894,	\$3,190.25
Cost of books and supplies in stock Jan. 1, 1894,	336.72
	<hr/>
	\$3,526.97

Cost of books and supplies charged to schools, 1894,	\$3,256.07
Cost of books and supplies in stock Jan. 1, 1895,	265.94
Cash receipts from sale of supplies,	4.96
	<hr/>
	\$3,526.97

Disbursements to the several schools, and otherwise,
are as follows :—

High school,	\$491.55
Fifth Street Grammar school,	185.26
Middle Street Grammar school,	142.49
Parker Street Grammar school,	123.33
Thompson Street school,	438.71
Harrington Training school,	162.53
Acushnet Avenue Primary school,	91.57
I. W. Benjamin Primary school,	140.56
Cedar Grove Street Primary school,	285.44
Cedar Street Primary school,	69.14
Cannonville Primary school,	21.48
Dartmouth Street Primary school,	182.76
Fourth Street Primary school,	74.49
S. A. Howland Primary school,	39.80
Linden Street Primary school,	54.24
Merrimac Street Primary school,	33.57
Maxfield Street Primary school,	47.12
Acushnet school,	7.85
Clark's Point school,	6.90
North school,	63.50
Plainville school,	41.61
Rockdale school,	10.19
North Mill school,	.75
South Mill school,	22.92
Manual Training school,	8.50
Care of musical instruments,	337.00
Express and freight,	57.12
Pedagogical library,	12.69
Lectures,	60.00
Covering and binding books,	4.25
Miscellaneous supplies,	38.75
Cash sales,	4.96
Stock on hand Jan. 1, 1895,	265.94
	<hr/>
	\$3,526.97

DETAILED STATEMENT.

Outlay by the School Committee from the income of the Sylvia Ann Howland fund, from Jan. 1, 1894, to Jan. 1, 1895 :—

BOOKS AND PERIODICALS.

American Book Co.,	\$74.31	
Allyn & Bacon,	8.00	
Boston School Supply Co.,	58.12	
Damrell & Upham,	11.75	
Educational Publishing Co.,	40.68	
Ginn & Co.,	58.64	
Heath, D. C. & Co.,	81.59	
Holt, Henry & Co.,	3.50	
Houghton, Mifflin & Co.,	252.56	
Hutchinson & Co.,	32.35	
Kellogg, E. L. & Co.,	1.70	
Leach, Shewell & Sanborn,	77.84	
Lee & Shepard,	102.41	
Lothrop, D. & Co.,	.40	
Little, Brown & Co.,	5.15	
Maynard, Merrill & Co.,	18.00	
New England Publishing Co.,	14.50	
Prang Educational Co.,	29.20	
Putnam's Sons, G. P.	8.55	
Potter & Co., John E.	9.50	
Porter & Coates,	2.16	
Silver, Burdett & Co.,	20.85	
Schoenhof, Carl,	56.36	
Taber, Robert W.	76.35	
University Publishing Co.,	16.67	\$1,061.14

PEDAGOGICAL LIBRARY.

Heath, D. C. & Co.,	\$0.76	
Hatch, W. E.	5.00	
Kellogg, E. L. & Co.,	2.93	
Putnam's Sons, G. P.	4.00	\$12.69

LECTURES.

Boyden, Arthur C.	\$60.00
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MUSIC.

Ditson, Oliver & Co.,	\$2.25	
Ginn & Co.,	700.87	
Haynes, John C. & Co.,	12.15	
Peirce, George	337.00	
Potter, Abby T.	250.00	\$1,302.27

BINDING AND COVERING BOOKS.

Buck, T. S.	\$3.00	
Kane, D. J. & Bro.,	75.27	
Wing, Charles F.	4.13	\$82.40

PRIMARY DEPARTMENT.

Dennison Manufacturing Co.,	\$25.00	
Eagle Pencil Co.,	3.21	
Perry, George S. & Co.,	113.25	\$141.46

APPARATUS.

Eimer & Amend,	\$27.51	
Franklin Educational Co.,	5.03	
Haskins, Charles N.	12.00	
King, J. D.	11.00	
Library Bureau,	10.25	
Mackie, James	1.00	
New Bedford Gas Light Co.,	.90	
Queen & Co.,	22.80	
Smith-Carleton Iron Co.,	3.00	
Sherman, C. R. & Son,	3.75	\$97.24

EXPRESS AND FREIGHT.

Ditson, Oliver & Co.,	\$0.10	
Eimer & Amend,	.20	
Frost & Adams,	.14	
Gray, Charles A.	5.80	
Hatch & Co.,	34.70	
Jennings, William A.	16.00	
Prang Educational Co.,	.08	
Schoenhof, Carl	.10	\$57.12

MISCELLANEOUS.

Adams, Charles F.	\$57.50	
Brightman, F. S.	9.00	
Board of Topographical Survey,	.75	
Caproni Bros.,	7.30	

Frost & Adams,	\$2.00	
Heath, D. C. & Co.,	9.62	
Holden Patent Book Cover Co.,	82.36	
Hammett, J. L.	92.00	
Hutchinson, H. S. & Co.,	.50	
Lumbard, A. M.	71.85	
McAllister, T. H.	20.70	
Peirce, Edward M.	2.00	
Richter, George H. & Co.,	11.23	
Taber, Robert W.	1.75	
Ullman Manufacturing Co.,	6.71	\$375.27

The balance unexpended of this fund has been gradually growing less each year, and that of the present year is but \$17. While the Committee expends this income each year in accordance with the terms of the bequest as it interprets these terms, it is evident that with the growth of the schools either certain expenditures now made from this income must be devoted to the text-book and supply account, or discontinued entirely. A considerable amount is now expended from this fund each year for music books.

Although vocal music is not a study required by statute to be taught in the public schools, the School Committee has power by statute to require it to be taught, and, as it has done so, these books can be purchased from the regular appropriation and the amount required for this purpose from the income of the Howland fund might be used for some other things which are desirable for the schools, but which cannot legally be purchased from the regular appropriation. This is also true of the supplementary reading books which have always been purchased from the income of the Howland fund. They can be legally purchased from the regular appropriations, and in most places are. In the past it has been a matter of expediency to purchase them from the income of the Howland fund. Whether it

will be best to continue this practice much longer is a question worthy of consideration.

TEXT-BOOKS AND SUPPLIES.

STATEMENT.

Cost of books and supplies purchased during 1894,	\$5,646.85
Cost of books and supplies in stock Jan. 1, 1894,	1,296.18
	<hr/>
	\$6,943.03
Cost of books and supplies charged to schools in 1894,	\$5,866.94
Cost of books and supplies in stock Jan 1, 1895,	1,049.68
Cash receipts from sale of books and supplies,	26.41
	<hr/>
	\$6,943.03

The cost in detail of books and supplies furnished the several schools for the year 1894 is as follows :—

	Supplies.	Books.	Total.
High school,	\$623.63	\$698.50	\$1,592.12
Fifth Street Grammar school,	345.45	462.91	808.36
Middle Street Grammar school,	231.67	218.09	449.76
Parker Street Grammar school,	299.06	242.82	541.88
Thompson Street Grammar school,	200.19	98.08	298.27
Acushnet Avenue Primary school,	64.98	67.25	132.23
I. W. Benjamin Primary school,	106.60	108.87	215.47
Cedar Street Primary school,	58.00	37.96	95.96
Cedar Grove Street Primary school,	232.65	140.54	373.19
Cannonsville Primary school,	20.20	11.88	32.08
Dartmouth Street Primary school,	99.33	82.53	181.86
Fourth Street Primary school,	50.81	61.98	112.79
S. A. Howland Primary school,	42.93	43.36	86.29
Linden Street Primary school,	34.51	36.33	70.84
Merrimac Street Primary school,	47.92	35.82	83.74
Maxfield Street Primary school,	26.87	25.06	51.93
Harrington Training school,	154.98	121.73	276.71
North Mill school,	13.18	5.83	19.01
South Mill school,	15.41	34.21	49.62
Acushnet school,	49.62	33.38	83.00
Clark's Point school,	16.20	18.42	34.62
North school,	31.12	27.19	58.31

	Supplies.	Books.	Total.
Plainville school,	\$13.18	\$8.06	\$21.24
Rockdale school,	16.63	18.25	34.88
Cedar Grove Street Evening school,	17.41	12.75	30.16
Parker Street Evening school,	3.06	4.37	7.43
Fifth Street Evening school,	1.17	8.02	9.19
Merrimac Street Evening school,	2.26	7.29	9.55
Thompson Street Evening school,	4.31	34.16	38.47
Evening Drawing school,	60.78	7.20	67.98
	<hr/>	<hr/>	<hr/>
	\$2,884.10	\$2,982.84	\$5,866.93

The average cost per pupil in the different departments of the schools, for books and supplies, has been as follows : —

High school,	\$4.47
Grammar schools,	1.34
Primary schools,	.49
Country schools,	1.19
Mill schools,	.61
Average for day schools,	.99
Average for evening schools,	.08
Average for evening drawing schools,	.96

The large increase in the book and supply account for the year is due to several causes. The High school course of study was changed radically, necessitating a large purchase of new books; over one-third of the increase was expended for books and supplies for this school. Another large and unusual expense was caused by the introduction of arithmetics for use in the two higher primary grades. Still another unusual expense was the purchase of drawing instruments for the higher grammar grades, which, however, will last some years. The other chief causes of the increase were the increased attendance of pupils and the more extensive use of paper in nature work and composition.

It is estimated that the expenses for this account will be no larger next year even with the regular increase of pupils than for the year just closed.

SCHOOLHOUSES.

The improvement in the quality of the schoolhouses of the city during the past few years has been very marked. Seven years ago there were in use a number of schoolhouses which were antiquated in their construction, inadequate in their appointments, and whose sanitary conditions were a constant menace to the health of both pupils and teachers. Such were the Kempton Street, the Grove, the Acushnet Village, the Arnold Street, the old Dartmouth Street, the old Fourth Street, and the William Street schoolhouses. These have either been replaced by buildings of modern construction built on the same sites, or have been abandoned and the pupils transferred to other and more suitable buildings. There remains within the city limits proper but one schoolhouse which is both old and inadequate for the needs of the district in which it is situated. This is the Linden Street schoolhouse. Another and more suitable lot has been purchased, however, in this district, and plans either have been or are about to be adopted for an eight-room brick building of modern design to be placed upon it.

During this period of seven years the following entirely new brick schoolhouses have been built: the Harrington Memorial, the Isaac W. Benjamin, the Sylvia Ann Howland, and the Fourth Street. The following brick buildings have been remodeled and enlarged: the Cedar Grove Street and the Acushnet Avenue. The Acushnet Village schoolhouse, a three-room wooden building, has been rebuilt, and the North and the Dartmouth Street schoolhouses, wooden buildings, have been enlarged.

When the new schoolhouse is built to take the place of the one on Linden street, there will be few cities where the pupils will be better housed. In all the cases when new schoolhouses have been built or new ones remodeled

within the past few years, an effort has been made to construct them with due regard to the best methods of heating, lighting, and sanitation. If any of these buildings are failures in the above respects it is not because these matters have not received due consideration by the School Committees and the City Governments under whose administrations they have been built, but for other reasons.

These new schoolhouses that have been built vary widely both in design and cost per foot of floor space. The contrast in these respects is much more marked between them than between those that were built earlier, as the Parker Street, the Middle Street and the Fifth Street schoolhouses.

When a schoolhouse containing say eight rooms well heated, lighted, ventilated, and fitted with modern sanitar-ies, can be built for from \$30,000 to \$35,000, why should nearly twice that sum be expended? Several of the recent schoolhouses have cost too much. The growing needs of the city will not justify lavish expenditures for new schoolhouses. The School Committee does not favor school houses so embellished that their cost is excessive, neither does it favor the erection of schoolhouses in which proper provision is not made for the health of teachers and pupils; nor does it advocate buildings whose exterior is an eyesore on account of cheapness of construction.

An eight-room building constructed in conformity with modern ideas as to heat and sanitation and sufficiently ornate in its exterior appearance ought to be built for from \$30,000 to \$35,000; and a twelve-room building for from \$40,000 to \$45,000. There are such schoolhouses; there are some in this city which are satisfactory, and their cost should serve as a limit in the construction of future school buildings here.

The new Fourth Street schoolhouse and the enlarged and remodeled Acushnet Avenue schoolhouse were com

pleted early in September last, and occupied at once. These buildings now give ample accommodations for the primary grades in that section of the city where there was insufficient room with both the corridors and basement rooms in use in the Acushnet Avenue school.

Sixteen of the eighteen rooms are now in use, one of them, however, being used for an overflow of the Dartmouth Street school.

Both these buildings are well heated and well lighted. The ventilation is excellent in both. The State Inspector says that the Fourth Street schoolhouse is one of the best ventilated schoolhouses in the State, each pupil being supplied with forty-two cubic feet of air a minute.

As shown above, it has been necessary to house one class of the Dartmouth Street school in the Acushnet Avenue schoolhouse. This arrangement does not meet with the approval of the parents whose children are compelled to attend school outside their own district, and shows the necessity for a new schoolhouse in the southwest part of the city.

A lot at least should be purchased in that section at once, and plans considered for the erection of a building upon it at an early date.

Respectfully submitted.

WILLIAM E. HATCH,
Secretary.

IN SCHOOL COMMITTEE,
January 3, 1895.

Resolved, That the thanks of this Board be, and they are hereby extended to his Honor the Mayor for the courtesy, ability and impartiality that has ever characterized his acts as Chairman of this Board.

Resolved, That the thanks of this Board are due and are hereby tendered Mr. Robert W. Taber, Vice-chairman of this Board, for the very able manner in which he has presided over its deliberations during the past year.

Resolved, That the thanks of this Board are due and are hereby tendered Mr. William E. Hatch, the Secretary and Superintendent, for his effective work in both positions, and for his uniform courtesy toward the members of the Board.

NEW BEDFORD HIGH SCHOOL GRADUATING EXERCISES.

JUNE 29th, 1894.

PRAYER BY REV. M. C. JULIEN.

1. SONG, "Gypsy Chorus" from "The Bohemian Girl." *Balfe.*
BY THE SCHOOL.
2. SALUTATORY ADDRESS.
ALICE MARIA BRIGHTMAN.
3. *ORATION, "Athletics in Relation to School Work."
ERNEST CUSHMAN READ.
4. SONG, "Wiegenlied." *Frank.*
BY THE SCHOOL.
5. *ESSAY, The Class Motto — "Vincit, qui se Vincit."
JANE WITTER STETSON.
6. SONG, "Where Are You Going To?" *Caldicott.*
BY THE SCHOOL.
7. BOURNE PRIZE ESSAY, "The Acadians."
SYLVIA WOOD PAULDING.
8. SONG, Chorus from "Judas Maccabæus." *Handel.*
BY THE SCHOOL.
9. PRESENTATION OF DIPLOMAS.
BY HIS HONOR MAYOR BROWNELL.
10. CLASS SONG. $\left\{ \begin{array}{l} \text{Words by SUSAN MACOMBER GIFFORD.} \\ \text{Music by EVA JENKS LAWTON.} \end{array} \right.$

Though to him who bravely struggles
On the bloody battlefield,
We may give all praise and honor,
Though we may all glory yield
To the hero, him who conquers
By the might of spear and shield,
Yet there is a nobler combat,
Fought with weapons all may wield.

Chorus: To conquer self, our noble aim,
Our motto high and true;
A greater gain, than wealth or fame,
The task we'll strive to do.

*The Class elect the Class Orator and the Class Essayist.

'Tis to him who, never flinching,
Bears the burdens of the day,
Who with patience, uncomplaining,
Toils along the upward way,
Who with hope and courage ever,
Though the world may on him frown,
Seeks the truth and holds it bravely
That is given the victor's crown. *Chorus.*

Then we'll rouse our strength for battle,
Broader fields before us lie;
Far beyond them, brightly gleaming,
Shines a glorious destiny.
Press we onward; if the march is
Hard and long, be this our cry,—
"After toil and trouble, surely,
Then will come our victory." *Chorus.*

11. VALEDICTORY ADDRESS, "Tomorrow to Fresh Woods and
Pastures New."

BERTHA CHASE HATHAWAY.

GRADUATES, CLASS OF '94.

Vincit, qui se Vincit.

Frederick Augustus Blossom,
 Harry Everett Boomer,
 Ira Mason Chace, Jr.,
 Arthur Franklin Colwell,
 Vernon Clifton Faunce,
 John Ashley Gammons,
 Arthur Lawson Grieve,
 Ernest Bruce Hadley,
 John Merrick Hathaway,
 Edward Howland Hicks,
 Charles Benjamin Hillman, Jr.,
 Frederick Woodman Jennings,
 William Jacob Knox,
 John Albert Lee, Jr.,
 John Locke Martin,
 George Frederick Maxfield,
 Frederick Winthrop Morrison,
 Norman Beverly Nesbett,
 Ernest Cushman Read,
 Percy Lawrence Reed,
 Clarence Spaulding Russell,
 Walter Kirk Smith,
 James Alexander Stetson,
 Walter Stanley Tripp.

Gertrude Burgess Allen,
 Eugenia May Beetle,
 Carrie Wellwood Bliss,
 Carrie Gibbs Bly,
 Ethel Hatfield Booth,
 Jessie Nelson Braley,

Alice Maria Brightman,
 Estella Maud Butts,
 Lizzie Almy Church,
 Grace Emerson Covill,
 Lurana Dennis Crapo,
 Florence Ladd Davis,
 Grace Winifred Dillingham,
 Anna Luella Field,
 Ethel Sears Gibbs,
 Susan Macomber Gifford,
 Bertha Chase Hathaway,
 Bertha Frances Hicks,
 Alice Maria Hillman,
 Julia Cushing Holmes,
 Mabel Kempton Howland,
 Annie Elizabeth Kasmire,
 Eva Jenks Lawton,
 Alice Macy,
 Edith May Packwood,
 Sylvia Wood Paulding,
 Sarah Helen Phillips,
 Laura Marie Richardson,
 Lulu Florence Rider,
 Helen Robertson,
 Ethel Hathaway Rust,
 Nellie Mary Shirley,
 Jane Witter Stetson,
 Helen Louise Swift,
 Ida Seabury Tripp,
 Eunice Carver Upham,
 Mary Eleanor Wood.

RECIPIENTS OF CERTIFICATES.

Alice May Allen,
 Florence Morgan Anthony,
 Josephine Hamilton Cobb,
 Sylvia Margretta Hillman,

Florence Anna Kelleher,
 Lucy Athearn Lewis,
 Gertrude Bosworth Sayer,
 Carrie Frances Wheeler,

Henry Dean Waldron.

NEW BEDFORD PUBLIC SCHOOLS.

RATES OF TUITION FOR NON-RESIDENT PUPILS, 1895.

	First Term.	Second Term.	Third Term.	For the Year.
High school,	\$16.86	\$16.86	\$22.49	\$56.21
Grammar schools,	7.88	7.88	10.50	26.26
Primary schools,	6.28	6.28	8.37	20.93
Ungraded schools,	10.40	10.40	13.87	34.66
Evening Drawing school,				9.44

RULES GOVERNING TEACHERS' SALARIES.

	Maximum.	Minimum.
Principal of High school,	\$2,750	
Sub-master of " "	1,600	
Teacher of science of " "	1,600	
Lady assistants of " "	900	\$650
Military instructor of " "	300	
Principals of grammar schools,	1,900	
Assistants of grammar schools,	600	425
Principals of primary schools,	600 to 800	
Assistants of primary schools,	550	375
Principal of Training school,	1,500	
Assistant principal of Training school,	1,000	
Seniors in Training school,	4 per week.	
Juniors in Training school,	3 " "	
Ungraded schools,	525 to 700	
Principals of evening schools,	3 per night.	
Assistants of evening schools,	1.50 " "	
Supervisor of drawing in grammar and primary schools,	1,200	
Teacher of drawing in High school and assistant,	800	
Supervisor of music,	1,500 for 4 days per wk.	
Teacher of sewing,	600	
Assistants at the rate of	525	
Cooking teacher,	600	
Manual training teacher,	1,200	

The salary of a primary school principal of a four-room building is \$600 per year, which is increased at the rate of \$25 for each additional room.

The salaries of assistant teachers in the High school are increased at the rate of \$50 per year until the maximum is reached.

The minimum yearly salary of a grammar school assistant is fixed at \$425, and the yearly advance is \$25 per year until a yearly salary of \$500 is reached; the annual increase is then \$50 per annum until the maximum (\$600) is reached.

The minimum yearly salary of a primary school assist-

ant is fixed at \$375, and the yearly advance is \$25 per year until a yearly salary of \$450 is reached; the annual increase is then \$50 per annum until the maximum (\$550) is reached.

DEPARTMENT OF PUBLIC SCHOOLS.

BRIEF DESCRIPTION OF THE SCHOOLHOUSES, WITH THEIR ACCOMMODATIONS AND CONDITIONS.

	SCHOOLS.	NAMED FOR.	Material.	Number of Stories.				No. of Seats.	CONDITION.
				No. of School Rooms.	No. of Recitation Rooms.	No. of Assembly Halls.	No. of Seats.		
1	Acushnet.	(Avenue).	Brick.	2	10			490	Good.
2	Acushnet.	(Location).	Wood.	2	3			114	Good.
3	I. W. Benjamin.	Isaac W. Benjamin.	Brick.	3	12			536	Good.
4	Cedar.	(Street).	Wood.	2	6			287	Good.
5	Cedar Grove.	(Street).	Brick.	3	15			673	Good.
6	Cannonville.	(Location).	Wood.	2	2			83	Fair.
7	Clark's Point.	(Location).	Wood.	1	1			35	Fair.
8	Dartmouth.	(Street).	Wood.	2	8			392	Good.
9	Fifth.	(Street).	Brick.	3	10		1	490	Good.
10	Thomas A. Greene.	Thomas A. Greene.	Brick.	3	8			389	Good.
11	High.	(Grades).	Brick.	3	10	4	1	385	Good.
12	Harrington Memorial.	Henry F. Harrington.	Brick.	3	8		1	372	Good.
13	Sylvia Ann Howland.	Sylvia Ann Howland.	Brick.	3	6			204	Good.
14	Linden.	(Street).	Wood.	2	4			241	Old, poor.
15	Middle.	(Street).	Brick.	3	9		1	429	Good.
16	Merrimac.	(Street).	Brick.	2	6			184	Good.
17	Maxfield.	(Street).	Brick.	2	4			211	Good.
18	North.	(Location).	Wood.	1	2			71	Good.
19	Parker.	(Street).	Brick.	3	12		1	577	Good.
20	Plainville.	(Location).	Wood.	1	1			28	Fair.
21	Rockdale.	(Location).	Wood.	1	2			36	Good.
22	Thompson.	(Street).	Brick.	3	10			390	Good.

CALENDAR, 1895.

Winter term begins January 7, 1895; ends March 29, 1895.

Summer term begins April 8, 1895; ends June 28, 1895.

Fall term begins September 3, 1895; ends December 20, 1895.

VACATIONS.

March 30, 1895, to April 8, 1895.

June 29, 1895, to September 3, 1895.

December 21, 1895, to January 6, 1896.

HOLIDAYS.

Every Saturday; Washington's Birthday; Patriot's Day; Memorial Day; from Wednesday noon before Thanksgiving the remainder of the week.

SCHOOL SESSIONS.

The grammar, Manual Training and Mill schools — From March 1, to November 1, 9 o'clock A. M. to 11.45 o'clock A. M.; 1.45 o'clock P. M. to 4 o'clock P. M. From November 1 to March 1, 9 o'clock A. M. to 11.45 o'clock A. M.; 1.30 o'clock P. M. to 3.45 o'clock P. M.

The Primary schools — From March 1 to November 1, 9 o'clock A. M. to 12 o'clock M.; 2 o'clock P. M. to 4 o'clock P. M. From November 1 to March 1, 9 o'clock A. M. to 12 o'clock M.; 1.30 o'clock P. M. to 3.30 o'clock P. M.

High school — 8.30 o'clock A. M. to 1.30 o'clock P. M. during the whole year.

The country school sessions shall be prescribed for each school by the Committee on Ungraded Schools.

The signal for no-session is two strokes of the fire alarm once repeated (2-2).

When given at 8.15 A. M. the morning session shall be omitted.

When given at 12.45 P. M. the afternoon session shall be omitted.

This regulation does not apply to the High school, or to the ungraded schools unless designated by the Board.

The no-session signal on stormy days shall not apply to the sessions of the manual training or the cooking schools; and pupils attending those schools shall not be excused from non-attendance upon them on account of the no-session signal.

DEPARTMENT OF PUBLIC SCHOOLS.

REPORT FOR YEAR BEGINNING JANUARY 8, 1894, AND ENDING DECEMBER 21, 1894.

NAME OF SCHOOL.	Total enrollment for year		Average num-ber belonging	Average daily attendance	Per cent. of at-tendance	Total half-days absence	Number cases of tardiness	Number cases of dismissal	Number cases of truancy	Suspensions	No. cases cor-poral punish-ment	Half-days t'ch-er was absent	Times teacher was tardy	No. Visits by Superintendent	No. visits by members of Committee	No. visits by parents and others
	Boys	Girls														
High.	175	164	356.4	341.2	95.7	3,166	1002	723	3	3		10	35	17	33	
Fifth Street Grammar.	256	288	411	385	93.7	10,679	1167	1676	13	4	62	169	9	60	52	324
Middle Street Grammar.	195	249	366	330	92.9	10,090	1176	1276	14	1	60	38	3	22	36	277
Parker Street Grammar.	276	310	438.5	432.1	94.2	10,765	1326	1099	18	2	26	132	27	52	43	493
Thompson Street Grammar.	130	137	199	183	93.3	6,057	281	531	15	1	31	36	14	42	56	179
Cedar Grove Street Grammar.	62	59	78.8	72	91	2,797	435	178	9	1	21	33	3	16	3	9
Harrington.	39	43	70.5	65.6	93	2,096	447	173	3	3	6			9	3	113
	958	1086	1538.8	1467.7	92.6	42,484	4832	4933	69	12	206	408	56	201	197	1395
Thompson Street Primary.	69	74	125	116	91	3,526	186	389	1		19	4	8	20	20	39
Harrington Primary.	133	127	233.1	230.9	91	8,338	1166	366	10		45			14	11	389
Cedar Grove Street Primary.	357	414	501.8	448.7	90	20,082	1617	8624	40		52	306	8	43	18	87
Acushnet Avenue Primary.	226	261	453	421	93	8,788	792	554	8		68	108	5	21	2	23
I. W. Benjamin Primary.	378	377	533	485	91	19,355	875	11,560	15		82	116	7	22	12	133
Cedar Street Primary.	146	156	232.6	226.4	90	9,693	490	186	19		33	30	14	23	20	66
Camnonville Primary.	38	35	62.2	56.7	91.1	2,124	167	45	2				1	4	2	18
Dartmouth Street Primary.	257	231	359	331	92	10,738	660	742	22		84	180	1	30	3	159
Thomas A. Greene Primary.	148	134	252	232	92	7,895	1324	209	8	2	71	13	11	28	22	58

AVERAGE AGE OF PUPILS IN VARIOUS GRADES.

HIGH SCHOOL.

Senior	Sub-Senior	Junior	Sub-Junior	Average age
Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.
18 2	17 1	16 5	15 5	16 9½

GRAMMAR DEPARTMENT.

SCHOOL.	Fifth Year	Sixth Year	Seventh Year	Eighth Year	Ninth Year	Average age
	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.
Fifth Street.	11 5	11 7	13 2	13 11	14 5	12 11
Middle Street.	11 6	12 8	13 3	14	14 2	13 2
Parker Street.	11 7	12 1	13 10	13 10	14 3	13 2
Thompson Street.	11 4	12 5	12			12 3
Cedar Grove Street.	10 7	12 8	12 11			12 1
Harrington Memorial.	11 3	12 3				11 9
	11 3	12 3	13 3	13 11	14 3	12 7

AVERAGE AGE OF PUPILS IN VARIOUS GRADES.

PRIMARY DEPARTMENT.

SCHOOL.	First Year	Second Year	Third Year	Fourth Year	Average age
	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.
Acushnet Avenue.	7 9	9 4	9 10	10 9	9 5
I. W. Benjamin.	6 11	8 8	10 8	11 4	9 5
Cedar Grove Street.	7 4	10 5	11 5	12	10 3
Cedar Street.	7 1	8 5	9 3	10 8	8 10
Cannonville.	6 10	7 11	9 1	10 3	8 6
Dartmouth Street.	7 1	8 7	9 5	10 6	8 11
Fourth Street.	7 1	8 2	10 1	11	9 1
S. A. Howland.	6 6	8	9 1	11 2	8 8
Harrington Memorial.	6 2	7 11	8	10 6	8 2
Linden Street.	6 8	7 9	9 6	10 4	8 7
Merrimac Street.	6 7	7 5	9 5	10 2	8 5
Maxfield Street.	7 3	7 9	9 3	9 10	8 6
Thompson Street.	6 7	8			7 3
	6 11	8 4	9 7	10 9	8 11

UNGRADED SCHOOLS.

	Grammar Department	Primary Department	Average age
	Yrs. Mos.	Yrs. Mos.	Yrs. Mos.
Acushnet School.	12 7	8 1	10 4
Clark's Point School.	12 3	7 3	9 0
Plainville School.	12 6	8 1	10 3
Rockdale School.	13 1	7 6	10 3
North School.	13	8	10 6
North Mill School.			13 9
South Mill School.			14
	12 8	7 9	11 3

PAROCHIAL AND PRIVATE SCHOOLS.

REPORT FOR YEAR BEGINNING JANUARY 8, 1894, ENDING
DECEMBER 21, 1894.

PAROCHIAL SCHOOLS.	Total enrollment for year		Average number belonging	Average daily attendance	Per cent of attendance	Under 5 years	Under 6 years	Between 6 and 14 years	Between 14 and 15 years	Between 15 and 16 years	Over 16 years
	Boys	Girls									
St. Joseph's.	410	412	731	686	94		70	498	75	58	30
St. Mary's.	243	250	486	381	79		43	425	8	10	
Sacred Heart.	417	450	740	725	98		229	627	12		
St. Hyacinth.	195	185	280	266	95	8	65	304	2	1	
	1265	1307	2237	2058	92	8	407	1853	97	69	30
PRIVATE SCHOOLS.	138	143	235	214	91	16	40	93	12	24	33

TEXT-BOOKS USED IN THE HIGH SCHOOL.

SCIENCE.

Appleton's Young Chemist.
Remsen's Chemistry.
Allen's Laboratory Manual.
Dana's Geological Story Briefly Told.
Packard's Zoology.
Youman's Botany.
Apgar's Plant Analysis.
Avery's Natural Philosophy.
Gillet and Rolfe's Astronomy.

GEOGRAPHY.

Guyot's Physical Geography.

PHYSIOLOGY AND HYGIENE.

Dalton's Physiology and Hygiene.
Hutchison's Physiology and Hygiene.

MATHEMATICS.

Robinson's Arithmetic, Part II.
Well's Academic Arithmetic.
Wentworth's School Algebra.
Wentworth's New Plane Geometry.
Wentworth's Plane and Solid Geometry.
Wentworth's Trigonometry.
Meservey's Bookkeeping.
Meservey's Bookkeeping Blanks.

HISTORY.

Barnes's History of Ancient Peoples.
Swinton's Outlines World's History.
Lancaster's History of England.
Fiske's History of the United States.
Martin's Civil Government.

ENGLISH.

D. J. Hill's Rhetoric and Composition.
Whitney-Lockwood English Grammar.
Lockwood's Lessons in English.
Underwood's American Authors.

Underwood's British Authors.
 Brook's English Literature.
 Dowden's Shakespeare.
 Monroe's Sixth Reader.
 Irving's Sketch Book.
 Longfellow's Evangeline.
 Scott's Lady of the Lake.
 Franklin's Autobiography.
 Bryant's Poems.
 Holmes's The Chambered Nautilus.
 Lowell's My Garden Acquaintance, The Vision of Sir Launfal.
 Macaulay's Lays of Ancient Rome.
 Shakespeare's Merchant of Venice, Midsummer Night's Dream.
 Addison's The Sir Roger de Coverley Papers.
 Tennyson's The Coming of Arthur, Elaine, Guinevere, The Passing of Arthur.
 Milton's Paradise Lost, Book I.
 Shakespeare's As You Like It and Julius Cæsar.
 Chaucer's Prologue to the Canterbury Tales.
 Spenser's Faerie Queen, First Canto.
 Shakespeare's Hamlet.
 Webster's First Bunker Hill Oration.
 Burke's On American Taxation.
 Burke's On Conciliation with America.

GERMAN.

Wenckebach's Deutsche Grammatik.
 Harris's German Lessons.
 Heness's Der Neue Leitfaden.
 Grimm's Haus Märchen.
 Goethe's Hermann and Dorothea.
 Ahn Henn's German Rudiments.
 Otto's German Grammar.
 Eichendorf. Aus dem Leben Eines Taugenichts.
 Riehl. Der Fluch der Schönheit.
 Chamisso. Peter Schlemil.
 Freytag. Aus dem Staat Friedrich's des Grossen.
 Heine. Die Harzreise.
 Goethe. Dichtung und Wahrheit, Hermann und Dorothea.
 Lessing. Minna von Barnhelm.
 Schiller. Wilhelm Tell, Das Glied von der Glocke.
 Wenckebach. Lyrics and Ballads, Die Schönsten deutschen Lieder.

GREEK.

White's First Lessons in Greek.

Goodwin's Greek Grammar.
Jones's Greek Prose Composition.
Goodwin's Xenophon and Herodotus.
Boise's Homer's Iliad.
Autenrieth's Homeric Lexicon.
Crosby's Greek Lexicon.
Manatt's Xenophon Hellenica, Books I-IV.
Woodruff's Greek Prose Composition.
Perrin's Homer's Odyssey (for "Homer at Sight").
Harper's Xenophon's Anabasis (for "Xenophon at Sight").

LATIN.

Collar & Daniell's First Latin Book.
Jones's First Lessons in Latin.
Harkness's Latin Grammar.
Allen & Greenough's Cæsar.
Greenough's Virgil.
Harkness's Cicero.
Jones's Latin Prose Composition.
Lindsay's Nepos.
Kelsey's Selections from Ovid.
Harper's Virgil (for "Virgil at Sight").

FRENCH.

Van Daell's French Grammar.
Keetel's French Reader.
Roulier's First Book in French Composition.
Chardenal's French Course.
Hennequin's Idiomatic French.
Sauveur's Causeries avec mes Elèves.
Spiers & Surenné's French Dictionary.
Gréville. Dosia.
Bedollière. La Mère Michel.
Halèvy. Un Mariage d'Amour.
About. La Mère de la Marquise.
Labiche. Le Voyage de M. Perrichon.
Sand. La Mare au Diable.
Eckmann-Chatrian. Le Conscrit de 1813.
Daudet. Le Siège de Berlin, La Dernière Classe.
Mérimée. Colomba.
De Vigny. Cinq Mars.
De Lamartine. Graziella.
Dumas. La Tulipe Noire.
Sandeau. Mademoiselle de la Seiglière.
Scribe et Legouve. Bataille de Dames.

Lamartine. Jeanne d'Arc.
 La Fontaine. Fables, Books I and II.
 Molière. L' Avare, Le Bourgeois Gentilhomme.
 Cornéille. Le Cid, Horace.
 Racine. Andromaque, Iphigénie.

SUPPLEMENTARY BOOKS USED IN THE HIGH SCHOOL.

Wells's University Algebra.
 Chauvenet's Geometry.
 Walpole's Virgil, Book 1.
 Sprague's Masterpieces in English Literature.
 Scott's Poems.
 Sprague's Paradise Lost, Books 1 and 2.
 Hudson's Shakespeare, Vols. 1 and 2.
 Rolfe's Childe Harold.
 Collier's History of English Literature.
 Lay of the Last Minstrel.
 Vicar of Wakefield.
 Shakespeare, by R. Grant White.
 Martin's English Language.
 Strang's Exercises in English.
 Modern Classics :
 Goldsmith, Cowper and Hemans.
 Fouque and St. Pierre.
 Byron and Hood.
 Burns and Scott.
 Fields and Hawthorne.
 Holmes and Brown.
 Howells.
 Campbell and Rogers.
 Carlyle, Lamb and Southey.
 Wordsworth and Coleridge.
 Dickens and Fields.
 Whittier.
 Hawthorne and Carlyle.
 Thackeray's Essays on Swift, Congreve, and Steele.
 Macaulay's Life and Writings of Addison.
 The Four Georges, Thackeray.
 Thackeray's Essays on Prior, Gay, Pope, Hogarth, Smollett, Field-
 ing, Sterne and Goldsmith.
 Milton and Byron, Macaulay.
 Sir Roger de Coverly, from Spectator.
 Macaulay's Essay on Johnson.

Macaulay's Essays on Goldsmith, Bunyan and Madame D'Arblay.
Goldsmith's Plays.
Goldsmith's Poems.
Heath's German Dictionary.
Boisen's German Prose.
Wenckebach's Anschauung's Unterricht.
Johnson's Schiller's Ballads.
Sauveur's Contes Merveilleux.
Le Roi des Montagnes, About.
La Littérature Française Contemporaine, by Pylodet.
La Littérature Française Classique, Mennechet.
Emerson's Essays.
Swinton's Word Analysis.
Swinton's School Composition.
American Poems.
About Old Story Tellers.
Anderson's Historical Readers.
La Tour de la France.
Perry's Bible Manual.
Seaver & Walton's Metric System.
Sawyer's Metric System.
Model Etymology, Webb.
Stein's German Exercises.
Kellogg's Rhetoric.
Smith's Principia Latina.
Craik's English of Shakespeare, Julius Cæsar.
Jackson's Mathematical Geography.
Shaler's First Book in Geology.
Collar's Practical Latin Composition.
Gray's Lessons in Botany.
Earl of Chatham, Macaulay.
Courtship of Miles Standish.
Emerson's American Scholar.
Comus.
Lodge's Mechanics.
Hall & Bergen's Physics.
The House of the Seven Gables.
Fisk's Civil Government.
Luquien's French Prose.
The Abbott, by Scott.
Whitney's The Essentials of English.
Carhart & Chute's Physics.
Appleton's School Physics.
Macaulay's Essays—Milton and Addison.
The Foundations of Rhetoric, by A. S. Hill.

Irving's Tales of a Traveller.
The Plague Year, by DeFoe.
Arnold's Sohrab & Rustum.
Scott's Woodstock.
Silas Marner, George Eliot.
Montgomery's Leading Facts of English History.
Smith's Smaller History of Greece.
Gray's Botany.
Wells' Geometry.
Berlitz Methode für den deutschen Unterricht, Zweiter Theil.

TEXT-BOOKS USED IN THE GRAMMAR SCHOOLS.

Franklin New Third Reader.
Franklin New Fourth Reader.
Franklin New Fifth Reader.
Franklin Sixth Reader.
Bradbury's Eaton's Elementary Arithmetic.
Bradbury's Eaton's Practical Arithmetic.
Seaver & Walton's Mental Arithmetic.
Warren's Common School Geography.
Harper's Introductory Geography.
Worcester's School Dictionary.
Barnes's History of the United States.
Hyde's Language Lessons, Part I.
Hyde's Language Lessons, Part II.
Hyde's Language Lessons, Advanced.
Harrington's Speller, Parts I and II.
Child's Health Primer.
Prang's Drawing Books.
Harper's Writing Books.

SUPPLEMENTARY BOOKS FOR READING AND STUDY USED IN THE GRAMMAR SCHOOLS.

Eggleston's First Book in American History.
Higginson's History of the United States.
Goodrich's Child's History of the United States.
Dickens' Child's History of England.
Andersen's Historical Reader.
Collier's British History.
McKenzie's America.
Ballou's Footprints of Travel.
Sea Side and Way Side, Part II.
Sea Side and Way Side, Part III.
Child's Book of Nature, Parts I, II, III, IV.

Choice Readings in Nature's Book.
Johonnot's Geographical Reader.
Scribner's Geographical Reader.
Our World, Part I.
Our World, Part II.
Fables and Folk Stories.
Kingsley's Water Babies.
Longfellow Leaflets.
Tanglewood Tales.
Grandfather's Chair.
True Stories.
Robinson Crusoe.
Golden Book of Choice Readings.
American Authors.
Swinton's Book of Tales.
Swinton's Supplementary Reader.
Swinton's American Classics.
Swinton's English Classics.
Swiss Family Robinson.
McGuffey's Fourth Reader.
McGuffey's Fifth Reader.
McGuffey's Sixth Reader.
Harvey's Fourth Reader.
Sheldon's Fourth Reader.
Sheldon's Fifth Reader.
Royal Fourth Reader.
Washington Irving's Sketch Book.
Lincoln's Gettysburg.
Arabian Nights.
Vicar of Wakefield.
King of the Golden River.
Church's Old World Stories.
Hans Brinker.
Black Beauty.
Little Men.
Little Flower People.
Little Lord Fauntleroy.
Heroic Ballads.
At the Back of the North Wind.
Stories of Industry.
Blue Jackets of 1776.
Blue Jackets of 1812.
Blue Jackets of 1861.
World at Home, Europe.
World at Home, The World.
Peasant and Prince.
Prince and Pauper.

TEXT-BOOKS USED IN THE PRIMARY SCHOOLS.

Franklin New First Reader.
Franklin New Second Reader.
Franklin New Third Reader.
Harrington's Speller, Part I.
Prince's Arithmetic, Part II.
Prince's Arithmetic, Part III.
Prang's Drawing Books.
Harper's Writing Books.

SUPPLEMENTARY READING BOOKS USED IN
THE PRIMARY SCHOOLS.

Monroe's Primer.
Monroe's First Reader.
Monroe's Second Reader.
Monroe's Third Reader.
Parker & Marvel's First Book.
Parker & Marvel's Second Book.
Sheldon's Second Reader.
Sheldon's Third Reader.
Appleton's First Reader.
Appleton's Second Reader.
Appleton's Third Reader.
Swinton's Second Reader.
Swinton's Third Reader.
Willson's First Reader.
Willson's Second Reader.
Willson's Third Reader.
Butler's First Reader.
Butler's Second Reader.
Stickney's First Reader.
Stickney's Second Reader.
Holmes's First Reader.
Holmes's Second Reader.
Harper's First Reader.
Harper's Second Reader.
Normal Primer.
Normal First Reader.
Barnes's First Reader.
Barnes's Second Reader.
Barnes's Third Reader.
Modern Second Reader.
First Term's Work in Reading.

Easy Steps for Little Feet.
 Seven Little Sisters.
 Each and All.
 Andersen's Fairy Tales.
 Robinson Crusoe (in one syllable).
 King's Picturesque Geography.
 Seaside and Wayside, Part I.
 Baker's Young Folks' Geography.
 Fables and Folk Stories.
 Wood's Natural History First Reader.
 Wood's Natural History Second Reader.
 Heart of Oak Series, No. 1.
 Heart of Oak Series, No. 2.
 Verse and Prose for Beginners.
 Æsop's Fables, Vols. I. and II.
 Grimm's Fairy Tales.
 Legends of Norseland.

PEDAGOGICAL LIBRARY.

Books added during the year are as follows:—

224	Trees of North Eastern America.	Charles S. Newhall.
225	Shrubs of North Eastern America.	Charles S. Newhall.
226	Human Body.	Martin.
227	Commissioners' Report on Manual Training.	
228	Report of the Committee of Ten.	
229	Talks on Pedagogics.	Col. Parker.
230	Talks on Pedagogics.	Col. Parker.
231	Talks on Pedagogics.	Col. Parker.

SCHOOL BOARD, 1894.

STEPHEN A. BROWNELL, Mayor, Chairman, *ex officio*.

ROBERT W. TABER, Vice-Chairman.

WILLIAM E. HATCH, Secretary and Superintendent.

JOHN H. BARROWS, President of Common Council, *ex officio*.

Ward 1 — Louis Z. Normandin, Anna R. Borden, John H. Lowe.

Ward 2 — Frank A. Milliken, Edward T. Tucker, Isaac B. Tompkins, Jr.

Ward 3 — William H. Pitman, Stephen H. Shepherd, William R. Channing.

Ward 4 — Seth W. Godfrey, George H. Dunbar (deceased), George H. Batchelor, William E. Brownell.

Ward 5 — William L. Sayer (resigned), Sylvia B. Knowlton, Robert W. Taber, Jonathan Howland, Jr.

Ward 6 — Francis M. Kennedy, Joseph C. Pothier, Betsey B. Winslow

STANDING COMMITTEES.

WILLIAM E. HATCH, Secretary.

The first named on each standing committee is Chairman of the same.

On High School — Pitman, Dunbar, Miss Winslow, Mrs. Borden, Tompkins, Shepherd, Sayer, Howland.

On Grammar Schools — Tompkins, Pitman, Howland, Dunbar, Lowe, Mrs. Borden, Sayer, Milliken, Channing.

On Primary Schools — Shepherd, Tompkins, Miss Winslow, Mrs. Borden, Kennedy, Godfrey, Channing, Tucker, Taber.

On Ungraded Schools — Lowe, Mrs. Borden, Howland, Brownell, Taber, Pothier, Godfrey, Tucker, Normandin.

On Training School — Milliken, Kennedy, Pitman, Sayer, Channing, Brownell, Miss Winslow, Pothier.

On Truants — Godfrey, Channing, Tucker, Pothier, Normandin.

On Evening Schools — Kennedy, Lowe, Godfrey, Channing, Tucker, Pothier, Normandin.

On Music — Mrs. Borden, Godfrey, Shepherd, Brownell, Taber, Pothier, Normandin.

On Manual Training—Sayer, Miss Winslow, Dunbar, Godfrey, Mrs. Borden, Tucker, Normandin, Kennedy.

On Examination of Teachers—Dunbar, Miss Winslow, Mrs. Borden, Tucker, Brownell, Milliken.

On Text-Books—Pitman, Kennedy, Milliken, Lowe, Sayer, Brownell, Pothier, Tucker.

On Expenditures—Howland, Tompkins, Pitman, Lowe, Shepherd, Kennedy, Milliken, Taber, Barrows.

On Howland Fund—Tompkins, Pitman, Dunbar, Shepherd, Kennedy, Taber, Howland, Barrows, Milliken.

On Rules—Taber, Dunbar, Milliken.

On Pay-Rolls—Tompkins, Howland, Taber.

SCHOOL BOARD, 1895.

DAVID L. PARKER, Mayor, Chairman *ex officio*.

FRANK A. MILLIKEN, Vice-Chairman.

WILLIAM E. HATCH, Secretary and Superintendent.

Office 133 William street.

Office Hours, 8.30 to 9 A. M., 12.30 to 1 P. M., Saturdays, 9 to 9.30 A. M.

OLIVER PRESCOTT, JR., President of the Common Council *ex officio*.

Regular meetings of the Board, first Monday of each month at 7.30 P. M., except in months of January and August.

WARD ONE.

Name.	Place of business.	Residence.
George W. Hillman,		1036 Acushnet avenue.
Louis Z. Normandin,	584 Purchase street,	586 Purchase street.
Anna R. Borden,		Ashland and Austin sts.

WARD TWO.

Isaac B. Tompkins, Jr.,	78 Union street,	691 County street.
Frank A. Milliken,	43 William street,	290 Pleasant street.
Edward T. Tucker,	258 Pleasant street,	258 Pleasant street.

WARD THREE.

William R. Channing,	192 Union street,	91 Mill street.
William H. Pitman,	Five Cents Sav'gs Bank,	60 Chestnut street.
Stephen H. Shepherd,	Standard office,	154 Maxfield street.

WARD FOUR.

Ada W. Tillinghast,		37 Eighth street.
Seth W. Godfrey,		429 Union street.
George H. Batchelor,	Institution for Savings,	187 Cottage street.

WARD FIVE.

Jonathan Howland, Jr.,		54 Russell street.
Sylvia B. Knowlton,		348 Union street.
Robert W. Taber,	28 Pleasant street,	48 Fifth street.

WARD SIX.

Betsey B. Winslow,		315 County street.
Francis M. Kennedy,	Eddy Building,	93 Washington street.
Joseph C. Pothier,	247 Fourth street,	247 Fourth street.

EMMA M. ALMY, Superintendent's Clerk.

HENRY SMITH, Truant Officer, 372 Cottage street.

Office Hours, 12.30 to 1 P. M.; Saturdays, 9 to 9.30 A. M.

GEORGE K. DAMMON, Messenger and Truant Officer, 137 Smith st.

STANDING COMMITTEES.

WILLIAM E. HATCH, Secretary.

The first named on each Standing Committee is Chairman of the same.

On High School — Pitman, Howland, Miss Winslow, Mrs. Borden, Tompkins, Shepherd, Batchelor, Channing, Milliken.

On Grammar Schools — Tompkins, Pitman, Howland, Mrs. Borden, Milliken, Taber, Channing, Mrs. Knowlton, Shepherd.

On Primary Schools — Shepherd, Tompkins, Miss Winslow, Mrs. Borden, Kennedy, Godfrey, Channing, Tucker, Taber.

On Ungraded Schools — Mrs. Borden, Howland, Godfrey, Pothier, Taber, Tucker, Normandin, Mrs. Tillinghast.

On Training School — Milliken, Pitman, Kennedy, Miss Winslow, Channing, Pothier, Mrs. Knowlton, Hillman.

On Truants — Godfrey, Pothier, Normandin, Mrs. Tillinghast.

On Evening Schools — Kennedy, Hillman, Godfrey, Tucker, Pothier, Normandin, Mrs. Knowlton, Mrs. Tillinghast.

On Music — Batchelor, Mrs. Borden, Godfrey, Shepherd, Taber, Pothier, Normandin, Mrs. Knowlton.

On Manual Training — Hillman, Miss Winslow, Batchelor, Kennedy, Godfrey, Tucker, Normandin, Mrs. Knowlton.

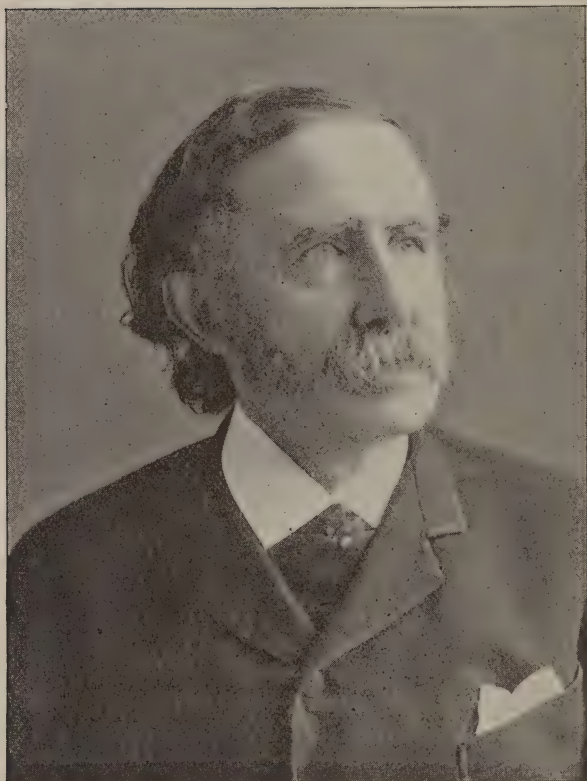
On Examination of Teachers — Miss Winslow, Mrs. Borden, Tucker, Batchelor, Mrs. Tillinghast.

On Text-Books — Pitman, Kennedy, Milliken, Pothier, Tucker, Mrs. Knowlton, Mrs. Tillinghast, Hillman.

On Expenditures — Howland, Tompkins, Pitman, Shepherd, Kennedy, Milliken, Taber, Channing, Prescott.

On Howland Fund — Tompkins, Howland, Pitman, Shepherd, Kennedy, Milliken, Channing, Hillman, Prescott.

On Rules — Taber, Tucker, Pothier, Batchelor, Hillman.



DR. GEORGE H. DUNBAR.

DIED FEBRUARY 23, 1894.

IN MEMORIAM.

RESOLUTIONS

Passed by the School Board of the City of New Bedford, Feb. 23, 1894.

While the Board from time to time has been called upon by the common fate that pertains to humanity to mourn the loss of some honored member, in the death of our colleague, the Hon. GEORGE H. DUNBAR, there is unusual cause for sorrow.

Formal resolutions are inadequate to express the value of Dr. DUNBAR'S services to the public schools of New Bedford. For twenty-seven years a member of this Board, the last twenty-five of which were continuous, his time, his sound learning, his ripe experience, and his wisdom, were unselfishly devoted to the cause of popular education. In the performance of his duty he was equally fearless in attacking that which appeared to him to be wrong or defending that which he considered to be right. He did not wait before passing his disapproval or giving his sanction to know whether his acts would meet with popular approval or not. He moulded public opinion instead of being controlled by it. These qualities, too infrequent in public officials, made him an invaluable servant of the people.

But his services as a school official were not confined simply to legislation in the Committee rooms. With leisure at his command, and possessing an innate love for children, he was frequently to be found in the schoolroom. His experience and judgment made him a wise counselor for the teachers, and his evident interest in the welfare of the children made him a welcome visitor to them.

For years to come the public acts of our lamented colleague will be a source of inspiration to the members of this Board, and his private virtues a most delightful memory.

The heartfelt sympathy of this Board goes out to the relatives of our friend and brother. To them is the consolation that his years were replete with the faithful performance of both his private and public duties.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF SCHOOLS,

FOR THE YEAR 1894.

Report of the Superintendent.

To the School Committee:

LADIES AND GENTLEMEN, — My seventh annual Report is herewith submitted. It is the thirty-fourth of the series of annual reports of the Superintendent of Schools of the city.

It gives me pleasure to report that the schools are in excellent condition. The spirit that pervades both teachers and pupils is good. Discontent and murmuring on the part of either are the exception and not the rule, and the work during the past year has been productive of good results. This is a period of educational change, and certain new departures have been made during the year in the schools which are in line with the best educational thought of the day. Some of these changes have been under contemplation for some time. The most important are: (1) the adoption of a new course of study for the High school, which in its general plan follows the recommendations of the "Committee of Ten"; (2) the revision of the rules and regulations of the Board and the adoption of a provision by which the standard of admission to the teaching corps has been materially raised; (3) the opening of the Manual Training school for the boys of the three highest grammar grades; (4) the adoption of the departmental plan of instruction for the grammar schools.

While innovations in school work should not be entered upon without due consideration and for the sake of change simply, more than in any other great business corporation, there come times when failure on the part of those in control of the schools to read the signs of the times means educational loss to the pupils in one case, as it means financial loss to the stockholders in the other. It may seem to some as if within a few years there had been more radical changes in methods and lines of work in the schools of the city than were necessary. But we have really done but little pioneer work here during that time. The paths have been well cleared and defined by others before we have entered upon them. When music, drawing, and sewing were introduced into the schools, New Bedford became nearer being an educational pioneer than she has been since. And while I feel that our schools to-day are in the van of educational progress, a wise conservative spirit has governed all new departures, and no important educational movement adopted by your Board during recent years has as yet proved to be an unwise one.

ATTENDANCE OF PUPILS IN THE SCHOOLS OF THE CITY.

By the courtesy of those in charge of the private and parochial schools I am able to give the attendance of pupils in all the schools in the city. Undoubtedly some pupils are enrolled in both the public and in some of the other schools, making the figures under the head of *enrollment* somewhat larger than the actual number of different pupils in the city who attended school during the year. The other items, however, are without question substantially correct, and are substantiated by the reports of the census officers.

PUBLIC SCHOOLS.

	1894.	1893.	Gain.
Enrollment of pupils,	7,426	6,884	542
Average number belonging,	5,720	5,543	177
Average daily attendance,	5,251	4,985	266
Per cent. of attendance,	91.8	89.9	1.9
Number cases of tardiness,	15,893	15,249	544
Number cases dismissals,	31,950	26,545	5,405

PRIVATE AND PAROCHIAL SCHOOLS.

	1894.	1893.	
Enrollment of pupils,	2,852	2,922	70 Loss.
Average number belonging,	2,472	2,694	222 "
Average daily attendance,	2,272	2,281	9 "
Per cent. of daily attendance,	92	85	7 per cent. Gain.

PUBLIC, PRIVATE, AND PAROCHIAL SCHOOLS.

	1894.	1893.	
Enrollment of pupils,	10,278	9,806	472 Gain.
Average number belonging,	8,167	8,237	70 Loss.
Average daily attendance,	7,523	7,267	256 Gain.
Per cent. of daily attendance,	92	88	4 per cent. Gain.

A more complete report of the attendance of pupils in the schools is given in the tables following the Secretary's report.

There is a constant increase in the attendance upon the public schools. During the last year the private and parochial schools show a small decrease, due probably to the business depression. The abnormal increase in the item of *enrollment* in the public schools is due unquestionably to two causes: first, a shifting of population caused by the temporary closing of the mills; second, by the temporary attendance of some pupils who afterwards returned to the parochial schools.

There is an improvement shown in the per cent. of attendance, but in two matters of equal importance there has been a continual increase in the wrong direction. I refer to the cases of tardiness and dismissal. There were

15,893 cases of the first, and 31,950 cases of the last, — an increase for the year of 544 cases of tardiness and 5,405 cases of dismissal.

I know that the teachers use all the means in their power to secure punctuality. They try persuasion, incentives and coercion, but without avail, as the returns show. I fear that very many parents do not realize the necessity of their earnest cooperation in this matter of tardiness, nor can I believe that even half the cases are those of necessity. Unless parents will recognize that the habit of punctuality is one that should be implanted in children and will work with the teachers to secure it, the results will never be satisfactory.

The dismissals have increased until they have become of real detriment to the schools. In some of the schools located in the mill districts whole rooms are almost emptied of pupils fifteen minutes each day before the closing hour. This means a loss of two weeks actual school time in the year to those who are dismissed, to say nothing of the disturbance and loss by interruption to those who remain. These same children who are dismissed each day to carry dinners are often absent also, and their continual loss of time has the effect of retarding the work of all those in the schools which they attend. The other regular dismissals are caused by the pupils carrying the daily papers and taking music and dancing lessons in school hours.

I realize that many of the cases of dismissal of pupils to carry dinners are necessary, and I see no way to remedy this evil except by a change in the hours for school sessions in some primary schools. Neither do I wish to condemn in general terms the action of parents who have their children dismissed for the other purposes which I have enumerated. But I do think that some pupils are dismissed to carry papers who are not in real need of the

pittance they earn in that way, and whose ultimate good demands their constant attendance at school in school hours. I believe also that it would be possible for pupils to acquire the accomplishments of dancing and music outside of school hours if parents would only think so and demand it. Upon them must rest the burden of reform in this matter of dismissals as well as in that of tardiness.

ACTS 1894, CHAPTER 498.

An Act Relative to the Attendance of Children in the Schools.

SECTION 1. Every person having under his control a child between the ages of eight and fourteen years, and in every city and town where opportunity is furnished, in connection with the regular work of the public school, for gratuitous instruction in the use of tools or in manual training, or for industrial education in any form, a child between the ages of eight and fifteen years, shall annually cause such child to attend some public day school in the city or town in which he resides, and such attendance shall continue for at least thirty weeks of the school year, if the schools are kept open for that length of time, with an allowance of two weeks' time for absences not excused by the superintendent of schools or the school committee. Such period of attendance shall begin within the first month of the fall term of school, and for each five days' absence of any such child thereafter, in excess of the above allowance, before the completion of the required annual attendance of thirty weeks, the person having such child under his control shall, upon the complaint of the school committee or any truant officer, forfeit to the use of the public schools of such city or town a sum not exceeding twenty dollars; but if such child has attended for a like period of time a private day school approved by the school committee of such city or town, or if such child has been otherwise instructed for a like period of time in the branches of learning required by law to be taught in the public schools, or has already acquired the branches of learning required by law to be taught in the public schools, or if his physical or mental condition is such as to render such attendance inexpedient or impracticable, such penalties shall not be incurred.

TRUANCY.

Notwithstanding the earnest efforts of the teachers and the vigilance of the truant officers truancy seems to increase. There were twenty-seven more cases reported

by the teachers for this year than for the previous one, or 245 cases in all. The truant officer investigated 714 cases of absence reported by teachers, and found that 119 were truants. The difference in number between his report and that of the teachers represents those pupils who returned to school before they were investigated by him, and also the difference between the number of individuals who played truant and the number of actual cases of truancy, each half day of absence being considered a *case* of truancy.

I do not know what more can be done to make truancy less frequent. I find often upon investigation that the truants do not absent themselves from school because it is particularly disagreeable to them, but for other reasons. They remain out to earn a little money with which to go to the *show*, or to the circus, or to the ball game, or to the polo game, or because they have not the will power to resist the influence of some other truant or shiftless boy who has completed his school time and is making a pretence to work, but who idles most of his time. Cases arise from pure shiftlessness on the part of the parents, who in their ignorance or degradation seem to care little what becomes of their children. Occasionally I find a case where the child claims that he does not go to school because he does not like the teacher, or because the work is discouraging, but these cases are rare. The great majority of teachers do all within their power to make their schools attractive to the pupils, and the cause of truancy lies to a great degree without the school. Its main cause is to be found in the home. The children whose homes are those wherein temperance and happiness prevail are seldom if ever truants, but those who come from homes where intemperance, or discord, or shiftlessness, one or all prevail.

The officers have been faithful and zealous in the per-

formance of their duties. Their statistical reports are given below.

REPORT OF HENRY SMITH, TRUANT OFFICER.

Schools visited,	1,413
Absences reported by teachers,	714
Absences without permission of parents,	119
Second offences,	28
Third offences,	15
Parents notified,	739
Taken to school from street,	4
Arrests,	11
Prosecutions,	11
On probation,	1
Sentenced to Truant school,	10
Visits to mills,	28
Violations of labor law,	

REPORT OF GEORGE K. DAMMON, TRUANT OFFICER.

Cases of absences investigated from evening schools,	175
Visits to mills and mercantile establishments in relation to labor law,	291

EMPLOYMENT CERTIFICATES.

Not so many certificates were issued as in 1893 by 96. This was undoubtedly due to the dull times and the closing of the mills. But still the number was large as shown below, and required much time to issue. No record is kept of those who are refused certificates, of whom there are many each year, every case of which requires more or less time in explanation.

I am satisfied that more or less deception is practiced in securing certificates, notwithstanding the strictness of the law in relation to affidavits regarding age. Although parents are required to make oath regarding the applicant's age, there is no question that some of them regard their necessities as an excuse for false swearing, or through dense ignorance know not what they are doing. Due

vigilance is used, and when there arises doubt about an applicant his birth certificate is required if it can be procured. But there are many cases where it is impossible to procure it, and I must be governed by my judgment alone.

A law was passed by the last Legislature (for full text of it see article on attendance), which raises the age at which a child may leave school to work in cities where there is manual training to 15 years of age, instead of 14 as at present. Another law was passed (for full text see article on manual training), which provides that after the first day of next September cities of twenty thousand or more inhabitants shall maintain a manual training department in connection with its High school.

I have continued so far to issue certificates to all children desiring them who produce a certificate that they have attended some proper school thirty weeks after they were thirteen, and I am inclined to think that I shall continue to do so, the law in regard to manual training notwithstanding, for I know not how to interpret that law with justice.

Number of certificates issued,		548
For the first time,	531	
Duplicate certificates,	17	548
Birthplace of those to whom certificates were issued:		
United States,	231	
Canada,	121	
England,	67	
Western Islands,	58	
Russia,	12	
Ireland,	11	
Germany,	10	
Scotland,	4	
Portugal,	4	
Cape de Verd Islands,	3	
Prince Edward's Island,	3	
Austria,	2	
Sweden,	1	

France,	1	
Wales,	1	
Brazil,	1	
Denmark,	1	531
Vacation certificates issued during the summer vacation,		112

THE WORK IN THE ELEMENTARY SCHOOLS.

The work in these schools during the year has, as a whole, been characterized by an intelligent conception on the part of the teachers of the studies they have been called upon to teach. There has been marked improvement in this respect, especially in teaching what may be termed the special branches.

The methods of teaching have also improved much within a few years. Part of this improvement is due to the action of the Board some five years ago by which professional training has been since then required of those who desire an appointment to the teaching corps. Good methods alone will not avail much. They must be skillfully used; and this knowledge must be acquired by special training and study. The unskilled artisan cannot do good work with the best of tools; in fact, the finer the tool used the greater is the necessity for the skilled hand. The failure by some teachers to secure good results is due oftentimes to the want of skill in using a method of teaching rather than to any fault in the method itself.

In order to secure the best results in teaching the teacher must come before his class each day with his lessons thoroughly prepared and with a definite conception of the object to be attained as well as how best to attain it. There must be present in him also that spirit that will arouse the interest of the pupils and hold their attention, or knowledge or method will avail little. And more than all, there must be a bond of sympathy and friendliness between the teacher and pupils which on the one hand will

cause him to exercise a proper forbearance in cases of failure and misconception on the part of the pupils, and will cause the pupils on the other hand to put forth their best efforts to learn, actuated not by fear of displeasure or punishment, but by that desire to please one whom they love and respect. This desire to please is not something that the teacher will be obliged to create, but simply to cultivate, for it is a part of the nature of every normal child.

As I have said before, in most of the schools proper preparation is made by the teachers; good methods prevail; and in many there is present the true teaching spirit. But in a system of schools every part is closely related to the whole. It resembles in a measure the human organism: a weakness in one part affects to a greater or less degree the whole body, and while in the majority of the schools the work is intelligent and accurate, and the true teaching spirit prevails, there are still some of which these things can scarcely be said, and these schools tend to weaken the whole system.

In the primary schools there have been no material changes during the year. Nature work, the study of which was begun systematically the preceding year, has been continued, and with a better comprehension of the subject on the part of the teachers good progress has been made.

Hitherto no text-book in arithmetic has been used in these grades. In September Prince's arithmetics were introduced for use in the upper grades, and the teachers have been relieved thereby from much work in preparing examples, while at the same time the work has been strengthened by the new trend given it.

In the grammar schools some marked changes have been introduced. Manual training has become a part of the curriculum now for all the grades in one form or

another. The girls now take sewing the first three years one hour a week as hitherto; they also take cooking a half day once in two weeks during the last two years; while the boys take the Sloyd system of manual training a half day every two weeks for the last three years of the course. It would be well if some arrangement could be made by which the boys could take some form of manual training during the first two years of the grammar course while the girls take sewing. Although this much time is devoted to manual training in some form, there has been no change in the amount of work required in the other studies, and there seems to be no more difficulty in accomplishing it than before.

Another radical change that has been made in the grammar schools during the year is the one of experiment in the line of departmental instruction. Teachers in the grammar schools under the old plan were compelled to teach the following subjects: arithmetic, United States history or geography, or both; language, including English grammar, reading, writing and spelling, drawing, music, physiology, nature work, and gymnastics; a formidable list. It could hardly be expected that teachers, even though well versed in all these subjects, could have the proper interest in teaching them all. They certainly deserve commendation for having done so well. To remedy this evil the departmental plan has been inaugurated by which these various branches are divided among several teachers to teach. There are different ways of applying this plan. In some places one teacher takes all the reading in the building, another takes the geography, &c. But the one adopted in our schools is one by which a teacher is not required to teach out of her grade. Our grammar schools are particularly adapted to this form. They are concentrated in a few buildings, and, by our organization, each building contains but five grades. With but little excep-

tion there are at least two classes of the same grade in each building, and many of these of the same grade are in connecting rooms and the pupils can always be kept under the eye of some teacher when the teachers are changing from room to room.

In assigning the studies to the various teachers due consideration was given to the preferences of each, the success she had achieved in teaching a branch of study, and the amount of work each study would involve under the new arrangement.

The principal objections that have been raised to the departmental plan are these: first, that there will be more trouble with the discipline than under the old plan; second, that the teachers will not be able to know as well the nature and disposition of each pupil who comes under her instruction.

The second objection is an important one from a pedagogical standpoint; but in my opinion it does not outweigh the objections to the old plan, especially when a teacher is not required to teach in more than two or three rooms of the same grade. If the several teachers record the observations made by them upon the various pupils and will advise together as well as with the principal, I believe that the pupils will be better understood by them than under the old plan.

So far in the application of the new plan in our schools the question of discipline has presented no obstacle worthy of consideration. Some of the teachers are enthusiastic in the approbation of the new plan, others disapprove, and some are non-committal. This was to be expected. It is the case with almost any new departure. The world is made up of radicals and conservatives. It is well that such is the case. Whether the departmental plan of teaching shall become the fixed plan of instruction for grammar schools will depend, however, upon the

results as evidenced in the pupils after it has had an impartial and searching test, and not upon the favor or disfavor of individual teachers.

Another important departure has been begun in the grammar grades which I hope to see developed and systematized in the near future. It is the careful study in all grades of one or more masterpieces of English literature. In the schedule of studies as now arranged a certain amount of time is set apart each week for this purpose. During the past year I have listened to exercises in some of the lower grammar grades which have been a revelation to me of what is possible for the skilled and enthusiastic teacher to do in this line with young children. It has been the custom to leave most of this kind of work for the High school, and it has been a great mistake. Many of the children who need this kind of work most not only never enter the High school but get little beyond the lowest grammar grades. Who can say what the study of some beautiful poem may do towards awakening within such children the finer instincts of their natures, or what it may do towards developing within them a taste for those things which make life purer and nobler.

In the ungraded schools the work varies somewhat, since the organization and composition of those schools are quite different. The instruction is on the same general plan as that of the graded schools, and the teachers follow it as well as circumstances will permit. There are but three of the twelve schools of this class (and by schools I mean different rooms) that are strictly ungraded. These are the schools at Rockdale, Plainville, and Clark's Point. It would be far better for the children of these schools if they were conveyed each day to the graded schools of the city and the separate schools abolished. This is especially true of the Plainville and

Clark's Point schools, where the attendance is both small and very irregular. In all of the schools of this class the teachers have labored earnestly to secure good results, but in two of them, the Plainville and Clark's Point, the conditions have been very discouraging. At the Rockdale school, which has an attendance of from thirty to thirty-five pupils of all grades, the experiment has been tried, with the consent of the parents, of having the children of the lowest grades primary attend during the forenoons only. This has relieved the teacher somewhat, and has proved to be no loss to the children, as the teacher was unable when they did attend afternoons to find the time to devote any attention to them that amounted to anything, and their restlessness was a continual distraction to her while she was engaged in teaching the older pupils.

THE HIGH SCHOOL.

The attendance upon this school was not so large the past year as in 1893, and the fact forces itself upon our attention that the growth of this school in numbers is not commensurate with that of the lower schools. This is without doubt due in a measure to the fact that a large increase in attendance in the lower schools within the last decade has been in a class of pupils whose parents do not feel that they can afford to send their children to school long enough for them to finish even their grammar school course. High schools in general, situated in cities whose chief industry is textile manufactures, do not rank in point of numbers with those whose industries require a more intelligent and therefore better paid class of help.

But is there no other reason why this school is not larger? Is there not a feeling in this community as well as in others that the High schools are not offering an education which is sufficiently practical,—a feeling that the purely academical course which is still the one which is

emphasized in these schools is not the one which best prepares the average boy or girl to cope with the world when he or she goes out into it?

It may be hard for those of us who have been nurtured in the belief that one who possesses a fair academic education is well equipped for the affairs of life, to be compelled to recognize that there is a large and growing number of practical men and women in every community who differ with us. They are those who feel that the specialization of labor, the adoption of labor-saving machinery and devices in almost every kind of occupation, and the fierce competition that prevails in all the affairs of life demand that those who attend the higher schools shall have the opportunity given them to acquire a training of the hand as well as of the mind. Many go farther, and say that those *occupations* which are most closely allied to the material welfare of a community should be taught in these schools.

Because these things are so many pupils are withdrawn from the public schools to attend commercial schools, which offer them instruction in practical bookkeeping, stenography, typewriting, etc. Others are withdrawn and put to work where they receive little or no remuneration for some years because parents feel that if their children continue their course in school they will be no better fitted to earn an honest livelihood after finishing a course in the High school than before.

That the demand for what is considered to be a more practical education is very strong is shown by many of our large cities founding manual training High schools and carrying them on side by side with the academic High schools; by the Legislature enacting a statute requiring cities of the State to supply manual instruction in the High school; by the agitation for trades schools and the belief advanced that they should become a part of the

public school system. In many other ways indeed than those specified is this feeling manifested.

I began by referring to the fact that the High school was not growing in numbers, and have given what appears to me to be one of the chief causes. For I think that the advantages offered by our High school are equal to those offered by the best schools with similar courses of study. I believe that the teaching compares favorably with that of the best High schools. It has weaknesses that might well be remedied, but I doubt if there are many High schools whose weaknesses are less marked. Therefore the failure of more to avail themselves of the advantages of the school must be due to other causes than the administration of the present curriculum.

The new course of study which went into operation in September, and the outline of which is given in this connection, is a great improvement on the former one in providing a continuous course for the four years in modern languages, history and science as well as in English. The minor changes also will tend to strengthen the work; the weakness of the course, it seems to me, is the failure to provide in it any instruction in manual training in any form, or any physical training except the military drill. At present there is being waged a wordy controversy in several States on the question whether military drill should form a constituent part of a High school training. Without entering into the controversy, I venture the opinion that if military drill is to be a part of our High school training arms should be provided for all the boys and drill in the manual required, and not relegated only to the volunteer company of cadets.

There has been improvement in some of the matters which called for criticism last year in the teaching. While there is an earnest spirit of work in the great majority of the pupils and a most pleasant relationship between them

and the teachers, this is not true of a strong minority. There has indeed been an unusual amount of friction in the military drill, and present conditions in drill matters cannot continue and the whole school not suffer.

I invite attention to the report of the Principal, Mr. Moore, which is appended.

ABSTRACT OF COURSE, WITH NUMBER OF RECITATIONS EACH WEEK IN EACH STUDY.

General Course. (Without Latin.)	General Course. (With Latin.)	College Prepara- tory Course. (Without Greek.)	College Prepara- tory Course. (With Greek.)
SUB-JUNIORS.			
Rec. English . . . 4	Rec. English . . . 6	Rec. English . . . 4	Rec. English . . . 4
French . . . 5	Latin . . . 5	Latin . . . 5	Latin . . . 5
Algebra . . . 4	Algebra . . . 4	Algebra . . . 4	Algebra . . . 4
Science . . . 2	Science . . . 2	Science . . . 2	French . . . 5
History . . . 2 (Greece.)	History . . . 2 (Greece.)	History . . . 2 (Greece.)	History . . . 2 (Greece.)
— 17	— 17	— 17	— 20
JUNIORS.			
Rec. English . . . 6	Rec. English . . . 4	Rec. English . . . 2	Rec. English . . . 2
French . . . 3	Latin . . . 5	Latin . . . 5	Latin . . . 5
Geometry . . . 3	Geometry . . . 3	Geometry . . . 3	Geometry . . . 3
Science . . . 2	Science . . . 2	Science . . . 2	
History . . . 3 (Rome.)	History . . . 3 (Rome.)	History . . . 3 (Rome.)	History . . . 3 (Rome.)
	French or Ger- man . . . 4	French or Ger- man . . . 4	French . . . 3 Greek . . . 5
— 17	— 19	— 19	— 21
SUB-SENIORS.			
Rec. English . . . 6	Rec. English . . . 2	Rec. English . . . 2	Rec. English . . . 2
French . . . 3	Latin . . . 4	Latin . . . 4	Latin . . . 4
or, German, with Juniors . . . 4	French or Ger- man . . . 4	French or Ger- man . . . 4	French . . . 3
Mathematics . . . 3	Mathematics . . . 3	Mathematics . . . 3	Mathematics . . . 3
Physics . . . 4	Physics . . . 4	Physics . . . 4	Physics . . . 4
History . . . 2 (England.)	History . . . 2 (England.)	History . . . 2 (England.)	Greek . . . 4
— 18 or 19	— 19	— 19	— 20

ABSTRACT OF COURSE—*Concluded.*

General Course. (Without Latin.)	General Course. (With Latin.)	College Prepara- Course. (Without Greek.)	College Prepara- tory Course. (With Greek.)
SENIORS.			
English . . . 4	English . . . 2	English . . . 2	English . . . 2
French . . . 3	Latin . . . 4	Latin . . . 4	Latin . . . 4
or, German, with Sub-Seniors 4	French or Ger- man . . . 4	French or Ger- man . . . 4	French . . . 3
History of U. S. & Civ. Govt. 4	History of U. S. & Civ. Govt. 4	History of U. S. & Civ. Govt. 4	History . . . 4
Two of the fol- lowing :	One of the fol- lowing :	And either	And either
1. Adv. Math. 4	1. Adv. Math. 4	Adv. Math. . 4	Adv. Math. . 4
2. Chemistry 4	2. Chemistry 4	or, Chemistry 4	or, Chemistry 4
3. Physiol. & Hygiene & Physiog. . 4	3. Physiol. & Hygiene & Physiog. . 4		Greek . . . 4
4. Commercial Arithmetic & Bookkeeping 4	4. Commercial Arithmetic & Bookkeeping 4		
19 or 20	18	18	21

MISCELLANEOUS.

SUB-JUNIORS.

Drawing, two recitations.
Music, one recitation.
Drill or Gymnastics, one recitation.

JUNIORS.

Drawing, one recitation. Three recitations for General Course without Latin.

Music, one recitation.
Drill and Gymnastics, one recitation.

SUB-SENIORS AND SENIORS.

Drawing, four recitations, elective for girls in place of Physics and Chemistry.

Music, one recitation.
Drill or Gymnastics, one recitation.

THE HIGH SCHOOL,
NEW BEDFORD, MASS., December 21, 1894.

Mr. William E. Hatch, Superintendent of Schools.

DEAR SIR:—At your request I present herewith a brief report with regard to the High school.

The new course of study, entered upon last September, is in successful operation, though its advantages will not be fully realized until the present sub-junior class shall have completed the four years of study under its requirements. Our school was one of the first to adapt the suggestions of the "The Committee of Ten" to its needs, and the results promise to be satisfactory, especially as the large majority of the pupils, who do not expect to go to college, are provided with more carefully adjusted and more thorough courses of study than heretofore. The course is thus devised for the best interests of the greater number who do not go to college.

The college preparatory course is carefully planned and will enable any pupil of average ability and industry to enter any college or scientific school at the end of four years of work. This course needs to be well planned, for we have pupils now preparing for sixteen different higher institutions no two of which have exactly the same requirements for admission.

There are gratifying indications that before long either these variations in the requirements for admission to college will be minimized or else admission will be given to any graduate of any one of the best High schools no matter which of its courses he may have pursued.

About one hundred and fifty of the pupils now in the school expect to go to higher institutions, twenty-five being in the senior class, thirty-five in the sub-senior class and the rest in the lower classes.

Stress has been laid upon the development of mental

power in the pupils, with instructive and encouraging results. Ability to observe accurately, to think independently and to express thought clearly and concisely is of prime value, and in these directions appreciable advance has been made.

The discipline of the school, as a whole, is satisfactory. There are, however, a few individuals whose lack of earnestness and failure to respond to the oft-applied stimuli of encouragement, advice and formal reprimand are an injury not to themselves alone, but also to their well-intentioned classmates, who receive less of the teachers' attention than they should because of the disproportionate time required by these few. I would defend more strenuously the interests of the ninety-nine out of a hundred pupils who show a desire to make the best use of the great privileges offered by the school.

The school still fails to provide (unfortunately, I think,) systematic physical exercise for the girls, the drill serving that purpose for the boys. As to the drill, it is under serious disadvantage in the lack of arms and organization, because it is thereby greatly limited in scope of instruction and furnishes no basis for a much needed and inspiring *esprit de corps*.

Respectfully yours.

CHARLES S. MOORE, Principal.

THE HARRINGTON TRAINING SCHOOL FOR TEACHERS.

This school is a most valuable adjunct to our school system, and is doing excellent work in preparing teachers for the schools.

There have been several changes made in the organization and method of conducting the school since its

inception, and I believe one other is necessary in order to to give it the highest effectiveness.

There are at present eight school rooms in the building, all occupied by pupils and representing the first six years of school life. Four of these rooms are now taught by regularly appointed teachers, instead of by trainers as at first, and the remaining rooms are more strictly practice rooms. This has been a change in the interest of the pupils; for by giving the principals a less number of rooms over which they must exercise the most critical watchfulness they can guard more efficiently the errors in teaching of the trainers.

While this change from the original plan has increased the efficiency of the schools so far as the children are concerned, the other change which I think is necessary is one that affects especially the principals and the pupil-teachers. At present there are three classes of the pupil-teachers; the sub-junior, the junior, and the senior. These classes are six months apart, a class being admitted twice a year. These classes vary much in numbers; some number upon entrance nine, the maximum, while others contain but two or three. This variation in numbers in the different classes, and the semi-annual admissions and graduations weaken the school in several ways. The course in itself is also too short for thorough normal work, and is a source of continual mental strain upon the principals. I therefore urge upon the Board to make the training school course two years long; to admit classes and graduate them but once a year.

If this is done: first, the classes I believe will be more uniform in numbers and the work of the school will not be disarranged as frequently as it is now; second, more time can be apportioned for normal work to the benefit of the teachers and the relief of the principals; third, the substitutes who are taken from the school will be more

efficient; there will be less repeating of part of the course by pupil-teachers, and graduates will have a better conception of the aim and methods of school work.

The classes which graduated this year were both unusually small. Those which will graduate next year are both large. The usual statistics are appended.

STATISTICS FOR THE YEAR 1894.

Number of pupil-teachers enrolled during the year,	21
Number of pupil-teachers admitted February, 1894,	7
Number of pupil-teachers admitted September, 1894,	3
Number of pupil-teachers in senior class, December, 1894,	8
Number of pupil-teachers in junior class, December, 1894,	6
Number of pupil-teachers in sub-junior class, December, 1894,	2
Number of days substituting by pupil-teachers,	237½
Number of days absence for other causes,	151
Total number of days absence of pupil-teachers,	388½

GRADUATES.

FEBRUARY, 1894.

Angela Florence Bowie, Marion Hannah Swasey.

JUNE, 1894.

Sarah Ellen Slade.

EVENING SCHOOLS.

While the enrollment in these schools does not include so many different names by several hundred this year, the average nightly attendance has been but thirty-two less than the preceding year, and the per cent. of attendance has been better. This difference in enrollment and attendance is partly due to closing the schools several weeks earlier than last year, the time when the attendance falls off very rapidly.

As for the last four or five years the greater number of the teachers are those who teach in the day schools. While I have favored the employment of day school teachers in the evening schools, I have done so for one

reason only—that it would be impossible to conduct these schools with any efficiency without the employment of the day school teachers. But teachers should not undertake this double duty unless their strength is sufficient for both. The first duty of the day teachers is due their day schools, and, if they undertake both, as soon as they find the evening school work encroaching upon their other duties they should give it up.

By far the largest proportion of those who attend the evening schools are illiterates. There are some who are not of this class, and I think there would be more if there were offered special courses in bookkeeping, typewriting, stenography, etc. It would be an excellent thing also if instruction in cooking, sewing, and Sloyd was offered to evening school pupils.

The discipline and teaching has been good in these schools during the year, reports to the contrary notwithstanding. In fact, the order in them has been as good as anyone would care to see. The pupils have been as attentive and as diligent as could be expected of persons who work hard through the day, and who have had little or no early mental training.

A table in another part of this Report gives all details of attendance in these schools.

SPECIAL STUDIES.

At the beginning of the school year in September a new schedule of time for the music supervisor went into operation, owing to the arrangement made with him by which he now gives four days only each week to the city, instead of five as heretofore. This arrangement was made as an experiment, in order to retain the services of the present supervisor without increasing his salary very appreciably. The experiment was not recommended without some misgivings by the sub-committee, and met

with much opposition in the full Board. I recommended the plan to be tried for one year, for I fully appreciated the good work that the supervisor was doing, and I also felt that it was not probable that his salary would be increased to the figure he demanded for full service.

But I am convinced that this plan will not answer for a permanent arrangement for a city of this size and which is constantly growing. Eight teachers have been added to the teaching corps since September, which means an addition of three hundred scholars. While I cannot learn that the arrangement in the three large grammar schools of doubling the classes for singing when the supervisor visits those buildings is at all objectionable, the primary schools need more of the direct instruction of the supervisor and the country schools should all come under his supervision, which they never have done with the exception of the Acushnet school.

The supervisor should also have an unassigned day in each month for visiting schools which lose his visits by the schools being closed on stormy days or for other reasons. Under the present arrangement each grammar school is visited by him once in two weeks, and each primary school once in a month. If anything happens to prevent his visit to a primary class in any one month, because the schools are closed on account of stormy weather, or for any other reason, two months or more may intervene between his visits to the teacher of that school.

While I recommended a trial of the present plan, I did so because I felt that it was the only way by which the services of the present efficient incumbent could be retained, as I did not believe the Board would pay the salary demanded by him for full service. But for the above reasons, and for some others which are not so palpable, I am convinced that the schools should have the services of the

music instructor for the full five days each week, and hope that such an arrangement may be made at the close of the present school year.

In drawing also a different arrangement was adopted for the year beginning in September. The teacher of drawing in the High school until then had been doing other work there which required considerable of her time, and it was necessary to have very large classes in drawing, too large in fact for effective work. This plan of having the drawing teacher in the High school take also some other study was begun experimentally two years ago to save expense, but it was not successful for several reasons. Now the drawing teacher in the High school gives four days to drawing there, which relieves the pressure of large classes in that branch, and one day a week assists the supervisor of drawing in the lower schools. This plan is much more satisfactory. The work in all the schools is now thorough and progressive from the lowest grade primary to the High school. It is applied in illustration of several other branches of study, as nature work, geography, history, composition, science and manual training, and not only adds to their effectiveness, but is really necessary to their proper teaching.

The Report last year contained a full report of the work from the supervisor and the general course as pursued in the schools. The supervisor and her assistant are both earnest, painstaking and efficient, and the work is certain to continue to improve under their direction.

The same teachers have been employed in teaching sewing as for some years past. Owing to the continual increase in the number of pupils, however, all three are now occupied every day each week with the exception of one day of one teacher. The work moves along smoothly, and I do not know but as effectively as possible. Of this I am sure that the teachers of this subject are not wanting in faithful, earnest work.

MANUAL TRAINING.

While drawing, cooking and sewing may fittingly be classed under the head of manual training, the term is now generally applied to shop work of some kind, either in wood or metal, and thus I will treat it.

In September last the Manual Training school was opened in the Sylvia Ann Howland schoolhouse in the room built for it. This new form of public school instruction is a constituent part of our curriculum. The departure is radical enough from the school of the past, but it has evidently come to stay, and I rejoice that it is so.

The school as now organized furnishes instruction in wood-working only to pupils of the three upper grammar grades. This is but a beginning, however. This kind of work should not stop with the Sloyd work of the grammar grades.

The last Legislature passed the following statute in relation to this subject, which shows the trend of public opinion :—

ACTS 1894, CHAP. 471.

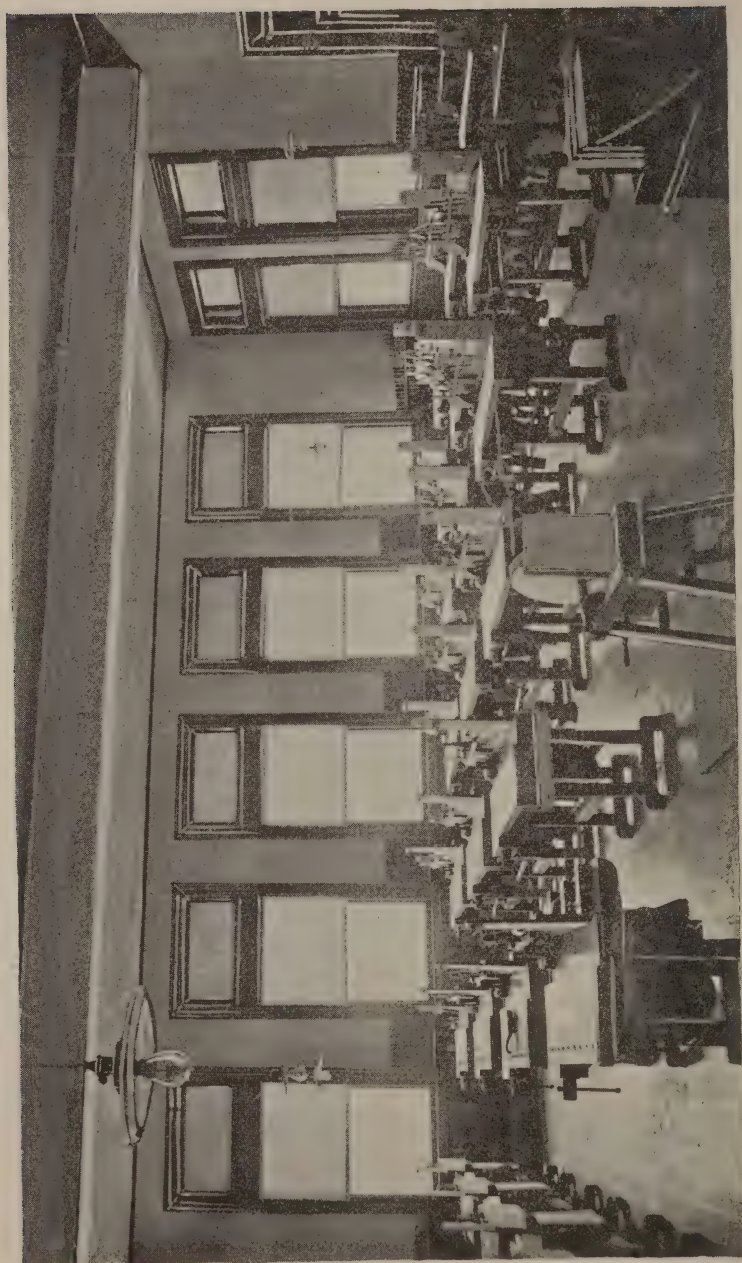
An act to provide for manual training in cities of more than twenty thousand inhabitants.

After the first day of September in the year eighteen hundred and ninety-five every city of twenty thousand or more inhabitants shall maintain as part of its High school system the teaching of manual training. The course to be pursued in said instruction shall be subject to the approval of the State Board of Education.

This makes it incumbent upon the Board to provide manual training in the High school after next September. There is no space in the High school building that is available for that form of instruction. If manual training is to be extended into the High school I think it would be well if the Sylvia Ann Howland schoolhouse

should be devoted entirely to manual training work and the cooking school. This of course would necessitate building another schoolhouse for the primary grades which are now in that building. If this plan should be adopted, something of the same arrangement might be made for the High school boys who would take manual training as for those of the grammar grades who now take it, or similar to the arrangement made for the High school girls who take cooking lessons. The Board should give this whole subject its early consideration.

Mr. Edwin R. King has charge of the manual training work. He was chosen from a number of applicants as particularly well qualified for this position. The work has begun well under his instruction. He has made a very full report of the work and what it aims to do, and I invite careful perusal of it.



MANUAL TRAINING ROOM.

NEW BEDFORD, December 22, 1894.

To the Superintendent of Schools.

SIR:—In compliance with your request for a report as to the amount of work accomplished, the object of, and suggestions for future work in manual training, I submit the following:—

The manual training room at the Sylvia Ann Howland school building was opened for the use of pupils September 10, 1894. The system taught is that known as the “Swedish Sloyd,” which had its origin in Sweden, but has been Americanized and adapted to the teaching of large classes in the elementary schools of this country.

The word “Sloyd” has no equivalent in the English language; it may be said to mean to design and execute, and may be applied not to wood-work alone, but to work in metals, straw, or paper. The word is, however, more commonly used in this country and in England in connection with the branches of wood-work which are being taught in the various schools. The word as now used really signifies educational manual training.

There are at present ten thousand children receiving instruction in Sloyd in the schools of the United States.

The course of work as laid out for pupils in the grammar grades includes the making of fifteen different joints and involves the use of forty-seven different tools, and also represents seventy-two different exercises.

Sloyd aims at the “harmonious development of the pupil, giving him by manual training and the use of the creative instinct such *general training* as will tend to fit him morally, mentally, and physically for any subsequent *special training*.” Sloyd exercises are strictly progressive, treating the eye and hand as avenues to the brain.

All models made in the Sloyd room are such as may be used at home or by the boy in his play. It should not be

inferred, however, that because the advocates of Sloyd claim the useful model that they place it upon the side of the industrial and economic, rather than that of intellectual training; or because boys are being taught to work in wood that they are to become carpenters, cabinet makers, or pattern makers. Such is not the case; and when metal work shall have been introduced into the manual training course the true object of these exercises in higher and broader education will be kept strictly in view.

Manual training does, however, form a foundation upon which to build up a technical education, or to fit a boy for special trade work. In the manual training school the object is not the narrow one of teaching a trade, nor is dexterity in special operations or the use of certain tools the end in view. But the insight which the boy obtains and the acquisition of the "fundamental principles which underly all trades" may in the future prevent the mistakes made by so many boys who select and attempt to follow avocations for which they have no aptitude, thus depriving not only themselves, but perhaps a large number of people, the benefit of talents which had they been properly directed would have been of great advantage to the community at large.

The working drawing used in manual training forms a prominent feature. It is not, however, desired to narrow the instruction in this course to drawing alone, but the making of the drawing, its use and the ability of the pupil to read it, and to understand the relation between the object which he wishes to make and the drawing which he may have already made are strong points in favor of manual training. To the professional man as well as to the mechanic will this training be a benefit.

After the first drawings have been completed the boy is given the knife with which to begin his tool work, it being the most simple as well as the least mechanical of all

tools. The free hand knife work in the Sloyd course is especially commendable, obliging the boy from the beginning to concentrate his whole mind upon the work which he has in hand. The knife is the only tool with which alone he can complete a model.

Form study, the cultivation of the æsthetic sense, the forming of the habits of perseverance, order, accuracy in measurements and in workmanship, neatness of person, thorough honesty in the execution of his work, and instilling a respect for honest bodily labor — these are a few of the many principles which the Sloyd teacher strives to inculcate by appealing to the natural interest and activities of the pupil. Sloyd also aims at the development of both the right and left sides of the body, and pays special attention to positions taken during work.

In short, Sloyd proposes, in connection with his other studies, to so educate the pupil that he may enter any walk in life with greater ease because of the greater brain power acquired. To act one must think, and, if the action is sufficiently varied, equally varied will be the thought.

The pupils who have entered the manual training school the present year are those who are members of the seventh, eighth and ninth grades at the Fifth Street, Middle Street, Parker Street, Rockdale and the Acushnet Village schools, and the seventh grade from Thompson Street and Cedar Grove Street schools. There was a total enrollment in the school December 22, 1894, of 422 pupils. At that time a number of the classes had commenced model number five.* No pupils have as yet been admitted from the High school, but it is hoped that the members of the ninth grade classes who enter that school the coming year will be allowed to continue their manual work.

* See list of Sloyd models.

In your last Report you expressed a wish that the manual work should begin as soon as possible after the pupil had entered the grammar school. There is a movement on foot in Boston to place the fourth grade boys (corresponding to the sixth grade in this city) in some manual training to be taught in the regular class room, giving the pupils a few of the more simple tools to use. The work is to be done in two dimensions only. A special knife-work course is being prepared with this end in view. It comprises eighteen models, but is as yet in the experimental stage.

After the work in the sixth grade, the seventh grade boys should begin the preliminary Sloyd, which requires the completion of fifteen models. The present seventh grade would have been started at this point, but it would have required some extra expense for tools, which I did not at that time wish to recommend. They are at present doing well in the regular three years' course which follows the preliminary Sloyd.

The training which the pupil would receive in the preliminary Sloyd course would enable him to proceed with greater intelligence and rapidity in the advanced work upon which the beginners of the present year are at work.

Before we can conform to the law with regard to the High school course for boys who have completed the grammar school work, it will be necessary for them to become thoroughly acquainted with the following exercises:—

1. The making and use of both scale and detail drawings.
2. The proper manner of filing the gauge spur; the sharpening of planes, chisels and gouges; the use of first, the oil stone, afterwards the grind-stone; the proper angle and shape of the teeth of saws, and the different kind of saws.
3. Methods of planing, boring, scoring, mortising, and manners of finishing.

4. Ways of fastening, such as nailing, screwing, gluing, draw boring, and the use of pins, wedging and dovetailing.

5. A familiarity with the various joints in use in mechanical work.

At this point the boy is in readiness to continue his wood-work upon a higher plane. He may take up wood turning and some steps in cabinet work. He may learn the manner of using veneers, because veneered work will stand better than the solid wood, and because work must be veneered on both sides.

The use of tree sections might be introduced in order to allow the pupils to examine the structure of the different kinds of wood, the manner of growth, the presence and appearance of sap wood, and strength of different kinds of lumber, where the more common kinds are found, and the market prices of those that are most used in construction and for ornamental purposes.

Turning, in connection with pattern making, might be taught in the second year's work, and moulding and casting with some soft metal or with plaster in the third year of the High school. This would finish the boy's seventh year in manual training. After that light iron work might be introduced; this, however, seems to be a work for the distant future.

It has been observed that teachers of natural science are generally strong advocates of manual training; they know how essential a knowledge of drafting and an ability to handle tools is to one who designs, constructs, or even keeps in order a piece of physical apparatus.

By a careful inspection of the following list the sequence of tools, models and exercises may be noted.

SLOYD.

(The following course of lessons in Sloyd is inserted by permission of the author, Gustaf Larsson, who reserves all rights in the original copy.)

FIRST YEAR.

Children 9-12 Years.

Preliminary Sloyd.

Time 2 Hours a Week.

Drawing.	New Exercises.	New Tools.	No.	Models Represent- ing the Exercises.	Kind of Wood.	Dimensions (Inches).
Practice with rule, pencil, try- square in drawing parallel lines.	Measuring and fitting, rip cross-cut sawing.	Rule, pencil, try square, splitting saw, back saw.	A.	Preparing for Nos. 1, 2, 3.	White wood.	7 x 5 x $\frac{1}{4}$.
Oblong, use of dimension and extension lines; dimension- ing.	Planing with and across the grain; sandpapering with block.	Smoothing plane, block plane, bench hook, sandpaper.	1	Ruler.	"	6 x 1 x $\frac{1}{4}$.
Oblique lines; dimension frac- tion.	Oblique planing.	[file Compass, centre-bit, flat	2	Label.	"	5 x 1 x $\frac{1}{4}$.
Circle; semi circle dimension. Use of centre lines. Dimensioning spaces.	Boring and filing. Gluing sandpaper. Curve sawing; smoothing with spoke shave.	Turning saw, spoke shave.	3 4 5	Key tag. Pencil sharpener. Round mat.	"	4 x $\frac{1}{2}$ x $\frac{1}{4}$. $5\frac{1}{2}$ x $\frac{1}{4}$ x 3-16. 6 x $\frac{1}{4}$.
Square. Quarter foil. Right angle triangle. Compound curves. Ellipse. Find centre of arc with given radius.	Filing right angles. Filing quarter foil. Block planing without bench hook. Boring arcs. Modeling with spoke shave. Filing symmetrical curves.	Half round file.	6 7 8 9 10 11	Thread winder. Quarter foil mat. Triangle. Fish line winder. Cutting board. Yarn winder.	"	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x $\frac{1}{4}$. 6 x 6 x 3-16. 5 x 5 x $\frac{1}{4}$. 6 x $\frac{1}{4}$ x $\frac{1}{4}$. 11 $\frac{1}{2}$ x 8 x $\frac{1}{4}$. 3 $\frac{1}{2}$ x 2 x 3-16.
Pentagon. Quadrant. Detail drawing. Drawing from description.	Filing bevel. Screwing hooks. Nailing. Compass sawing.	Bradawl. Compass saw. Hammer, nail set.	12 13 14 15	Vase stand. Key board. Bracket. Frame.	White wood. Cherry. White wood. Cherry.	5 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x $\frac{1}{4}$. 8 x 2 $\frac{1}{2}$ x 3-16. 13 x 4 $\frac{1}{4}$ x $\frac{1}{4}$. 8 $\frac{1}{2}$ x 6 $\frac{1}{4}$ x 3-16.

Drawing.	New Exercises and Review of Preliminary Course.	Tools Used.	No.	Models Representing the Exercises.	Kind of Wood.	Dimensions (Inches.)
Working drawings, full size, including free-hand curves and simple geometrical problems, excepting Nos. 6, 11 and 13, when the children read another's drawing.	Straight, oblique and cross whittling. Point whittling, sandpapering, (without block). Rip sawing, edge planing, squaring. Boring with drill bit, fitting peg, curve whittling. Cross-cut sawing, gauging, end planing (in bench hook), augur bit, sandpapering (with block).	Knife, ruler, lead pencil. Sandpaper. Rip saw, jack plane, try-square. Bit brace, drill bit. Cross cut saw, marking gauge, block plane, bench hook, augur bit.	1	Wedge.	Pine.	3 x 1 x $\frac{1}{4}$.
	Curve sawing, smoothing with spoke shave, boring with bradawl.	Turning saw, spoke shave, bradawl.	2	Flower pin.	Pine.	12 x $\frac{1}{2}$.
	Surface planing, vertical chiseling, horizontal boring, filing, end planing (without bench hook).	Chisel, flat file, compass.	3	Flower stick.	Pine.	15 x $\frac{1}{2}$ x $\frac{1}{2}$.
	Nailing, sinking nails. Making halved-together joints. Countersinking, gluing, screwing.	Hammer, nail set. Countersink, screw driver.	4	Penholder.	Pine.	7 $\frac{1}{2}$ x $\frac{1}{2}$.
	Modelling with spoke shave, scraping. Beveling with spoke shave. Oblique planing	Cabinet scraper, half round file.	5	Tool rack.	Pine.	16 x 1 $\frac{1}{2}$ x $\frac{3}{4}$.
			6	Coat hanger	Pine.	15 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x $\frac{3}{4}$.
			7	Cutting board.	Pine.	18 x 7 x $\frac{3}{8}$.
			8	Flower-pot stand.	Pine.	15 x 5 $\frac{1}{2}$ x 1 7 16
			9	Flower-pot stool.	Pine.	5 $\frac{1}{2}$ x 1 x $\frac{3}{8}$.
			10	Bench hook.	Pine and cherry.	14 x 5 $\frac{1}{2}$ x 1 $\frac{1}{2}$.
			11	Hatchet handle.	Beech.	14 x 1 $\frac{1}{4}$ x $\frac{3}{8}$.
			12	Corner bracket.	Pine	10 x 10 x 1 $\frac{1}{2}$.
			13	Hammer handle.	Beech.	12 x 1 $\frac{1}{4}$ x $\frac{3}{4}$.

THIRD YEAR.

Time, 2 Hours a Week.

Children 13-14 Years.

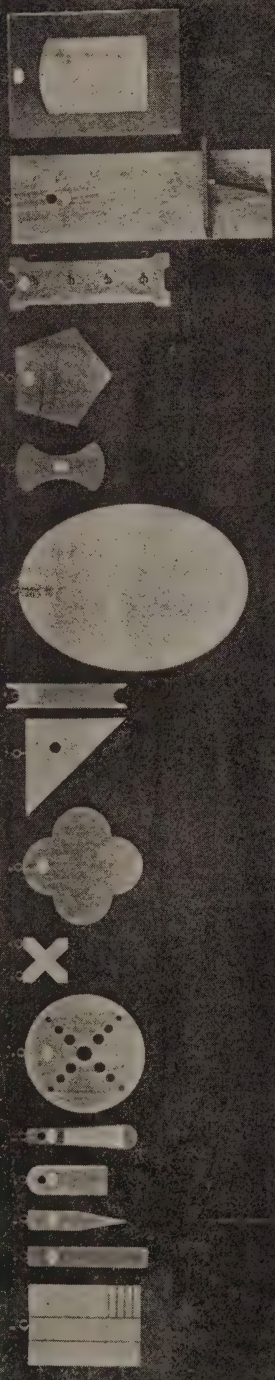
Drawing.	New Exercises and Review of Preceding Work.	New Tools.	No.	Models Representing the Exercises.	Kind of Wood.	Dimensions (Inches.)
The same as the second year, increasing in difficulty as the models become more complex.	Spacing with compass, veining, carving.	Vehner, skew chisel.	14	Key board.	Pine.	15 x 2 x $\frac{1}{2}$.
	Wedge planing, filing edge, notching, punching.	Round file, carver's punch.	15	Paper knife.	Maple.	13 x $1\frac{1}{4}$ x $\frac{1}{4}$.
	Bevelling edge with jack plane and file, boring with centre bit.	Centre bit.	16	Ruler.	Maple.	16 x $1\frac{3}{4}$ x 3-16.
	Planing a cylinder, fitting axle.	Mortise gauge, mallet.	17	Towel roller.	Pine.	18 $\frac{3}{4}$ x $4\frac{1}{4}$ x 2 $\frac{1}{4}$.
	Open mortise and tendon joint, making and fitting dowels		18	Frame.	Pine.	10 x 8 x $\frac{3}{4}$.
	Fitting and nailing square joints.	Gouge, round cabinet scraper.	19	Box.	White wood.	11 x 5 x 2 $\frac{3}{4}$.
	Grooving with gouge.		20	Pen tray.	Gum wood.	10 $\frac{1}{2}$ x $2\frac{1}{4}$ x $\frac{3}{4}$.
	Chamfering, straight-edge bevelling.		21	Hat rack.	Pine.	18 x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$.
	Half lapping, grooving with chisel.	Compass saw. Bevel, rabbet plane.	22	Picture frame.	Pine.	10 x 8 $\frac{3}{4}$ x $\frac{1}{2}$.
	Compass sawing.		23	Cake spoon.	Cherry.	13 x 2 x $\frac{5}{8}$.
	Grooving with rabbet plane, mitring.		24	Picture frame.	Cherry.	8 $\frac{3}{8}$ x 6 $\frac{1}{4}$ x 7-16.

FOURTH YEAR.

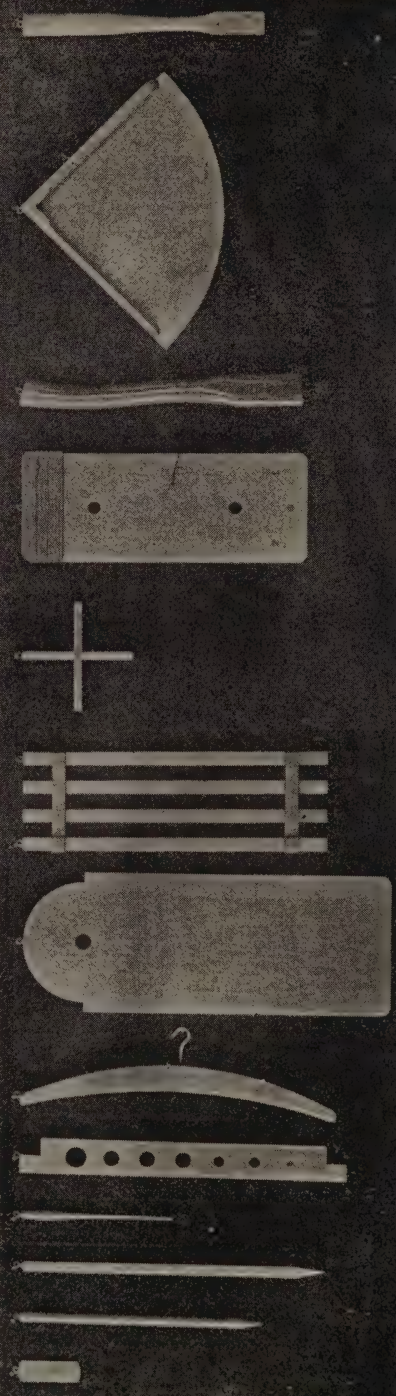
Children 14-15 Years.

Time, 2 Hours a Week.

Drawing.	New Exercises and Review of Preceding Work.	New Tools.	No.	Models Representing the Exercises.	Kind of Wood.	Dimensions (Inches).
Working drawings to scale and from description. Difference between orthographic and isometric projection and perspective drawing. Lettering work and making blue prints.	Half oblique dovetail.		25	Foot stool.	Pine.	13 x 7 x 6.
	Vertical gouging; cutting with drawing knife.	Drawing knife.	26	Scoop.	Cherry.	9½ x 1½ x 2¾.
	Plain dovetailing; carving curve design.	Paring tool.	27	Book rack or brack. ^{[et.}	Pine.	16 x 5½ x 6½, or 8½ x 7 x 5.
	Square grooving; half round bevelling with plane.		28	Knife box.	Pine.	12½ x 9 x 2.9.16.
	Plain jointing; use of matching plane; cleating.	Jointer plane, matching plane, cabinet makers' clamps.	29	Drawing board.	Pine.	19 x 13 x ½.
	Dovetailing with mitre; shellac-ing.		30	Tray.	Cherry and mahogany.	16 x 10.5.16 x 2½.
	Panel grooving; half blind dovetailing; blind mortise and tenon joint; fitting hinges and lock; polishing.	Framing chisel, plough, mitre box.	31	Tool chest or cabi-net.	Pine.	27½ x 13½ x 9½.



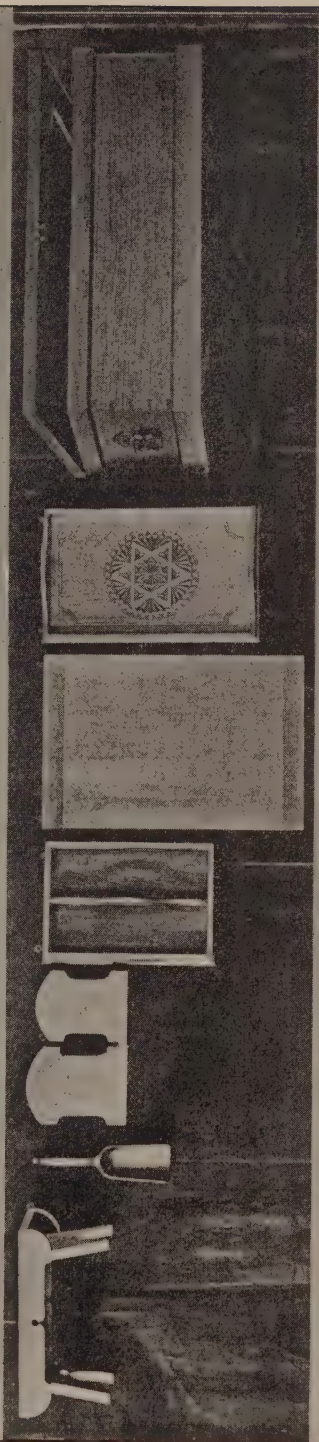
Preliminary Sloyd. Two hours a week. Fifteen models. Pupils 11-12 years.



Sloyd. Second year. Two hours a week. Thirteen models. Pupils 12-13 years.



Sloyd. Third year. Two hours a week. Eleven models. Pupils 13-14 years.



Sloyd. Fourth year. Two hours a week. Seven models. Pupils 14-15 years.

The following is a list of models constituting the whittling course which is being tried experimentally in the fourth grade in some of the Boston schools:—

WHITTILING IN THE SCHOOLROOM AND SIMPLE EXERCISES IN WORKING DRAWING FOR CHILDREN UNDER TWELVE YEARS OF AGE.

Exercises.	No.	Models.	Wood.	Drawing.	Tools.
Straight whittling and cross-cutting; sandpapering.	1	Sandpaper block.	Basswood, $\frac{1}{4}$ inch.	Oblong (one view up to No. 13).	<i>For each pupil.</i> Desk board, sketch book, pencil, rule, compasses, try-square, knife, sandpaper block.
Oblique whittling.	2	Label.	Basswood, $\frac{1}{8}$ inch.	Dimensioning oblique lines.	<i>General tools in care of the teacher.</i> Cutting-off saw, back saw, hatchet, bit, Bradawl, oil stone, oil can, cotton waste. Sandpaper No. 1 and No. 0.
Cutting out square corners.	3	Thread winder.	Basswood, $\frac{1}{8}$ inch.	Square; dimensioning corners.	
Whittling to a convex line; boring.	4	Key tag.	Basswood, $\frac{1}{8}$ inch.	Circle and semi-circle.	
Gluing sandpaper.	5	Pencil sharpener.	Basswood, $\frac{1}{8}$ inch.	Centre line; tangent arc.	
Whittling to a convex line, with square shoulders.	6	Match striker.	Basswood, $\frac{1}{8}$ inch.	Review of No. 4.	Price of tools for each pupil. . . \$1.00 General tools for a class, 5.00 Wood for each pupil in the course, . . . 20
Cutting triangular incisions.	7	Fish line winder.	Basswood, $\frac{1}{8}$ inch.	Review of No. 3.	
Study direction of the grain in cutting and whittling.	8	Mat (hexagon).	Basswood, $\frac{1}{8}$ inch.	Construction of hexagon.	
Cutting right-angled triangles.	9	Silk winder.	Basswood, $\frac{1}{8}$ inch.	Review of No. 3.	
Oblique cutting.	10	Mat (pentagon).	Basswood, $\frac{1}{8}$ inch.	Construction of pentagon.	
Whittling concave arcs.	11	Yarn winder.	Basswood, $\frac{1}{8}$ inch.	Arcs with given radii.	
Marking with the knife.	12	Mat (quarterfoil).	Basswood, $\frac{1}{8}$ inch.	Construction of quarterfoil.	
Broad surface whittling.	13	Rule.	Cherry, 3-16 inch.	Spacing with needle point.	
Whittling to a sharp edge.	14	Wedge.	Basswood, $\frac{1}{8}$ inch.	Top and front view.	
Whittling to a sharp edge.	15	Letter opener.	Cherry, 3-16 inch.	Drawing cross section.	
Round and point whittling.	16	Flower pin.	Pine, $\frac{3}{4}$ inch.	Front and end view.	
Modelling with the knife.	17	Crochet needle.	Cherry, 3-16 inch.	Review of No. 16.	
Modelling with the knife to a sharp edge.	18	Paper knife.	Cherry, 3-16 inch.	Review of No. 15.	

As parallel numbers for extra work, representations of different saw teeth, clay-modelling tools, penholder, etc., are suggested. The sandpaper should be done in a good standing position, the cutting and drawing while sitting at the desk. Sandpaper should not be used until the work is as well done as possible with the edge tool and approved by the teacher.

Respectfully submitted. EDWIN R. KING, Principal of Manual Training School.

THE HEALTH OF PUPILS.

It is a matter of supreme importance whether the physical welfare of the pupils is properly cared for while they attend school. It is a great wrong to compel children to attend a school, the rooms of which are not well ventilated and lighted, or whose other sanitary conditions are not good. Public sentiment has been aroused in regard to these special matters within a few years, and there has been a decided improvement in the sanitary condition of modern schoolhouses. There has been a great improvement for the better also within twenty-five years in the seats and desks used. But too many children are compelled to sit for hours each day in seats which for one cause or another are entirely unsuitable from a hygienic standpoint. Adjustable desks have been invented which can be fitted to any child, and they should be in every school room.

Another danger to which pupils appear to be more subjected to in school than out is that of contracting contagious diseases. Precautions are now used by excluding every pupil from school who has been exposed to such diseases until he presents a certificate from a physician that all danger of contagion is past. But statistics show that notwithstanding this precaution contagious diseases are much more prevalent when the schools are in session than at other times. This exclusion of children who are known to have been exposed in any way to contagion results in a serious loss of time to many children other than those who are sick. More needs to be done to prevent contagion in the schools. The sources of contagion in the school room should be reduced to as small a number as possible. It is thought that slates, sponges and pencils which are used by different pupils are prime sources in spreading contagious diseases in the schools. On this

account some cities have already abolished the use of slates and sponges in their schools, and require the lead pencils that are used in drawing and writing to be distributed to each pupil for his exclusive use. The expense of paper is some more, (if used for all purposes instead of slates,) but this should not be considered if the health of the pupils is at stake. I ask the attention of the Board to this matter and recommend the substitution of paper for slates in all of the schools.

A thorough and systematic system of physical training should be in use in the schools if the health and well being of the pupils are to be promoted as they should be. Opinions may differ as to the best system to use, but I do not think that many will argue against the benefits to be derived by the children from such a course. Physical culture in the school room is not offered, however, as a substitute for the spontaneous play and out-door games of the children. These ought to be encouraged more than they are, and it would be an ideal system if every school-house could have extensive play grounds and play sheds where the children, under the supervision and direction of their teachers, could indulge in all sorts of health-giving plays and other exercises.

But such conditions are practically impossible in our public schools, owing to the great expense that this would entail. The next best thing is to supplement present conditions with a system of physical training taught in the school rooms; a system that will require little or no apparatus, in the lower grades at least, but which will develop health, strength and a proper carriage of person in the pupils. There are such systems. There are not many progressive cities where a system of physical training is not a constituent part of the curriculum. Excellent teachers, professionally trained, are now to be had at no great cost.

Some two years ago the Board, upon the recommendation of a special committee appointed for the purpose of investigating systems of physical training and reporting upon one to use in the schools, voted to adopt the Ling system. No special instructor has been elected, however, without whom it would not be expedient to put the system into practice. Another committee was appointed recently to consider this question, but no report was made before the close of the year, when its time of service came to an end by limitation. I most earnestly hope that the Board will take speedy action on this matter.

TEACHERS.

The Legislature of 1886 passed the following act relating to the tenure of office of teachers: "The school committee of any city or town may elect any duly qualified person to serve as a teacher in the public schools of such city or town during the pleasure of such committee; provided such person has served as teacher in the public schools of such city or town for a period of not less than one year."

The school authorities of the various cities and towns have been rather slow to adopt the permissions of this statute. They have felt that the tenure of office of efficient and faithful teachers is sufficiently stable with annual elections; that indeed with annual elections it is not an easy matter to hold some teachers up to their best effort or to dispense with their services even when known to be inefficient, owing to the influence of their friends, political or otherwise, and that permanent tenure would make such teaching still more indifferent and inefficient; that public sentiment has not yet demanded that professional preparation of teachers which would make it expedient to give any more stable tenure of office to them.

Whether sound or not, these arguments have been sufficiently strong to prevent the act of 1886 becoming generally adopted. Some cities have adopted its provisions, however, and I believe the day is not distant when all of them will.

Some six years ago the adoption of this act was urged upon your Board by a member, but no action was taken. I was not then sufficiently acquainted with the schools of the city to know whether it was best at that time to adopt it or not; but from the knowledge I possessed of the manner in which additions had been made to the teaching corps for some years preceding, and for other similar reasons, I then felt that it would be better to postpone action upon it.

But I believe the time has come when this act should be adopted for our schools, and all teachers of the corps who have taught acceptably in them for at least three years should be elected during the pleasure of the School Committee; and hereafter all teachers after three years of acceptable service should be placed upon the permanent list.

I recommend this change for these reasons:—

1. The teaching corps is now in excellent condition as a whole, and the regulations of the Board now require adequate preparation for admission to it.

2. Annual elections are a source of worry, or at least of annoyance, which is distracting to the teachers in their work and which affects often worthy and efficient teachers full as much as those who are least efficient, and the tendency of annual elections is to weaken the influence of the teachers in their school rooms rather than to strengthen it.

3. The School Committee by adopting this act surrender no part of their power of removal, but simply forego the annual election of all teachers upon the permanent list.

The Board has dispensed with the services of but five or six teachers during the last seven years, and these in every case for failure in governing or teaching and after consideration in each case by the proper sub-committee. Yet during this time every teacher of the corps has been compelled to go through the annual ordeal of being re-elected. It may be said in argument that worthy and efficient teachers need have no fear of an annual election. But the fact is they do and always will have, and so does every one who holds a public or quasi-public office. If elected during the pleasure of the School Committee, which means virtually election until they are shown to be inefficient or unworthy, teachers would have a feeling of security in their positions which would reduce their inclination to worry, help to give them that balance and poise of mind which is so necessary to those who are called upon to govern, and strengthen their influence with their pupils. But with permanent tenure of office for teachers there is the greater necessity for exercising the utmost care in appointing and in confirming them.

The services of two teachers were dispensed with during the year, and there have been a number of resignations for various reasons. The vacancies thus caused and the increase in attendance of pupils have necessitated an unusual number of appointments.

There has been an unusual number of absences of teachers on account of their own ill health and sickness in their families. Those absences (together with a few incidental ones) amounted to 1,322 half days last year, requiring the services of about four substitutes for each school day. The time is surely coming when candidates for teachers' positions will be required to undergo a physical examination before they will be permitted to enter the teaching profession. Many who enter it now are physically unfit to undertake its duties. It is the duty of teachers to take

more exercise than most of them do, and it should be outdoor exercise so far as possible. Many of them are sadly wanting in that physical vigor that is so necessary for them to resist the nervous strain made upon them in their profession.

All the appointments, resignations, transfers, etc., are given below :—

APPOINTMENTS.

Edmand E. Baudoin,	Military Instructor, High school.
Emma B. McCullough,	Fifth Street Grammar school.
Mary W. Leymunion,	Fifth Street Grammar school.
Annie C. Hart,	Fifth Street Grammar school.
Emma A. Gilman,	Middle Street Grammar school.
Lucy F. Winchester,	Middle Street Grammar school.
N. Emma Slack,	Parker Street Grammar school.
Agnes W. Lindsey,	Parker Street Grammar school.
Angenette Chace,	Parker Street Grammar school.
Julia F. Coombs,	Parker Street Grammar school.
Angela F. Bowie,	Thompson Street Grammar school.
Carrie L. Chapman,	Linden Street Primary school.
Ruth M. Tripp,	Linden Street Primary school.
Nellie A. Walker,	Acushnet Avenue Primary school.
Sarah E. Slade,	Dartmouth Street Primary school.
Elizabeth S. Foster,	Cedar Grove Street Primary school.
Florence A. Chaffin,	Cedar Grove Street Primary school.
A. Gertrude Wheaton,	Cedar Grove Street Primary school.
Edwin R. King,	Manual Training Teacher.

RESIGNATIONS.

John K. McAfee,	Military Instructor, High school.
Harriet F. Hart,	Fifth Street Grammar school.
Blanche W. Sheldon,	Fifth Street Grammar school.
Nancy H. Brooks,	Fifth Street Grammar school.
Clara B. Watson,	Middle Street Grammar school.
Agnes W. Lindsey,	Parker Street Grammar school.
Isadora Foster,	Linden Street Primary school.
Annie M. King,	Acushnet Avenue Primary school.
Ethel W. Denham,	Cannonville Primary school.
Carrie A. Shaw,	Cedar Grove Street Primary school.

ABSENT ON LEAVE.

N. Emma Slack,	Parker Street Grammar school.
May L. Pettey,	Parker Street Grammar school.
Lucy S. Leach,	Linden Street Primary school.
Mary C. Barstow,	Dartmouth Street Primary school.
Sara M. Hatch,	Cedar Grove Street Primary school.
Elizabeth Bennett,	Acushnet Avenue Primary.

TRANSFERS.

Lottie M. Allen,	from I. W. Benjamin to Fifth Street.
Helen McCoy,	from Cedar Grove Street to Middle St.
Harriet N. Hyatt,	from Acushnet Avenue to Acushnet.
Caroline O. Peirce,	from Acushnet to Acushnet Avenue.
Sarah A. Winslow,	from I. W. Benjamin to Acushnet Ave.
Julia W. Corish,	from Training school to Cedar Grove St.
Florence A. Poole,	from Training school to Cannonville.
Marion H. Swasey,	from Training school to I. W. Benjamin.

TEMPORARY ASSISTANTS.

Annie L. Burbank,	Linden Street school.
Mary G. Fuller,	North school.

TEACHERS' MEETINGS.

In my rounds of visits to the schools I note the state of each room in regard to temperature, ventilation, cleanliness and order, as well as the methods of discipline and instruction that are employed by the various teachers. I also observe whether the regulations of the Board and the course of study are being followed and the progress that is made by the pupils.

These observations, whether favorable or unfavorable, are made the basis of the meetings that I hold with the principals of the schools each month. They in turn hold meetings of their assistants each month, or oftener, and discuss these matters with them. Special matters relating to any individual teacher are brought to his or her attention alone, either by me directly or through the medium of the principal.

In addition to principals' meetings, meetings of different kinds are held for the instruction of the teachers in methods of teaching, both in their general and special work. The drawing and music supervisors both hold meetings throughout the year for instruction in their special subjects. Prof. A. C. Boyden, of the Bridgewater Normal School, has met the teachers of all grades one Saturday in each month for instruction in nature work as during the previous year. This work under his general guidance is becoming a source of valuable training for the pupils.

On October 19 a teachers' institute was held in this city under the direction of the State Board of Education. The schools were dismissed for that day and all the teachers attended the exercises, which were most stimulating and helpful. The teachers from the adjacent towns and Fall River also attended in such numbers that there were nearly five hundred teachers who enjoyed the benefit of the exercises.

The following was the program : —

PROGRAM.

- | | | | | |
|-------------|------------------------------|-----------|------------------------|--|
| 9.00 A. M. | Introductory Remarks, | . . . | Frank A. Hill, | |
| | | | | <i>Secretary of the Board.</i> |
| 9.20 A. M. | Principles and Methods of | | | |
| | Teaching, | | John T. Prince, | |
| | | | | <i>Agent of the Board.</i> |
| 10.00 A. M. | Drawing (Primary Section), | | Henry T. Bailey, | |
| | | | | <i>Agent of the Board.</i> |
| 10.00 A. M. | Reading and Literature | | | |
| | (Grammar Section), | . . . | Miss Anna B. Thompson, | |
| | | | | <i>Thayer Academy, Braintree.</i> |
| 10.00 A. M. | Physics (High School Sec- | | | |
| | tion), | | Charles F. Warner, | |
| | | | | <i>English High School, Cambridge.</i> |
| 11.00 A. M. | Geography (Primary Section), | | Frank F. Murdock, | |
| | | | | <i>Bridgewater Normal School.</i> |
| 11.00 A. M. | History (Grammar Section), | | George H. Martin. | |
| | | | | <i>Supervisor Boston Schools.</i> |

11.00 A. M.	Algebra (High School Section),	J. W. McDonald, <i>Agent of the Board.</i>
1.30 P. M.	Arithmetic (Primary Section),	George I. Aldrich, <i>Supt. of Schools, Newton.</i>
1.30 P. M.	Geography (Grammar Section),	Mr. Murdock.
1.30 P. M.	History (High School Section),	Mr. Martin.
2.30 P. M.	Reading (Primary Section), .	A. W. Edson, <i>Agent of the Board.</i>
2.30 P. M.	Drawing (Grammar Section),	Mr. Bailey.
2.30 P. M.	Latin (High School Section),	Mr. McDonald.
3.30 P. M.	Language (Primary Section),	Mr. Prince.
3.30 P. M.	Arithmetic (Grammar Section),	Mr. Aldrich.
3.30 P. M.	English Literature (High School Section), . . .	Miss Thompson.

On Thursday evening, October 18, Rev. Dr. Alexander McKenzie, of Cambridge, delivered a lecture in connection with the institute in High School Hall on "The Imagination in Education."

VERTICAL PENMANSHIP.

One of the most recent of the educational movements is the one to revolutionize the style of penmanship which has so long held sway, namely, the Italian or sloping style. This style of writing is said to have been invented by a Venetian in the sixteenth century, and to have spread rapidly throughout Europe. The vertical form of penmanship which is now advocated as better than the sloping is said to have been the form in use among the ancient Greeks and Romans, and prevailed throughout Europe through the Middle Ages. It was the style of penmanship practiced by our forefathers, and many of the early documents of this country were written in that style, and are remarkably clear and legible after the lapse of several centuries.

So this movement for vertical penmanship is a renaissance in writing, not a new invention. It is claimed for it:—

1. That it is more legible than the sloping style.
2. That it is more easily acquired by the pupils.
3. That its use is less liable to produce spinal curvature, myopia, and other ills that the use of the sloping style tends to produce in the pupils.
4. That it occupies less space than the sloping form and can be more quickly written.

These certainly are strong arguments in its favor, if they are sound. The first claim seems to me to be self-evident. The second is based on the statement of unbiased teachers who have tried both. A trial of three months in one of our schools gave strong proof that the pupils acquired the style much more readily than they did the slanting even in the higher grades, and their writing was more legible than before.

High medical authority in Germany, Austria and England, and other foreign countries where investigations have been made in styles of penmanship and their relation to the physical welfare of the pupils, strongly endorse the vertical.

It surely occupies less space, and the fact that classes of persons who are compelled from the nature of their occupation to write rapidly, such as telegraphers and reporters, use the vertical form to a great extent, gives force to the claim that it can be more quickly written.

The principals of the grammar schools of the city are unanimous in favor of its adoption. For these reasons and because of the failure of the great majority of the pupils to acquire the art of writing a legible and rapid hand under the old style, I recommend the adoption of the vertical for use in the schools of the city.

THE PUBLIC LIBRARY AND THE SCHOOLS.

There is now scarcely a city or town of any importance in the State that cannot boast of its public library, which has either been presented to it and endowed by some philanthropic citizen or created and maintained by the town itself. Massachusetts is as famous to-day for the number and quality of her public libraries as she is for the character of her public schools. They were both founded for the same purposes,—the suppression of ignorance and the creation of an intelligent body of citizens. For this reason and because they are supported by public funds, they both should not only be open to those who wish to patronize them, but should strive to bring those who know not their advantages nor care for them within their beneficent influences.

It is not my intention, however, to engage in a dissertation upon the public library and what it should do in a community, for it is not fitting in a report of this kind. But I do feel that these two great factors in public education, the public school and the public library, should be brought into more intimate relationship than they have ever been. Whether it has been the fault of the schools in not seeking with sufficient earnestness the advantages offered by the libraries, or whether the libraries have not offered the inducements that they should to the schools, is not the question. The question is, is there that close inter-relation between the public schools and the public libraries that there should be; and if not, how can it best be brought about?

In some of the large cities of the West much is being done in the way of cooperation between the library and the school. In some places teachers are invited to come in groups to the library to be informed by the librarian about the treasures to be found there, and conferences are

held regarding the best way of making the library a helpful supplement to the school work ; in some, sets of books of fifty or more, selected for their merit and suitability to young readers, have been purchased and organized into a kind of circulating library for the schools ; in some, lists of books suitable for children of different ages are prepared at the library with titles and catalogue numbers and sent to the various schools, thus stimulating the children to read good literature and to aid them in selecting it ; in some, where the building is suitable and the funds of the library permit the employment of sufficient assistance the children themselves are even given access to the bookshelves to choose from the rich store spread before them. In very many the teachers are given privileges in regard to the number of books they are permitted to take from the library to their schools, as well as to the length of time they are permitted to keep them.

I think that in the cities of the West there has been greater progress in establishing the proper relation between the library and the schools than in the East ; but within a few years much has been done in this direction in many places in the East and especially in our own State. This movement should become general. And as there is scarcely a hamlet of any size in the State that does not have its public library, what a powerful instrument for good such a movement would become.

Childhood and youth are the periods in which habits are formed for life. Therefore if a taste for good literature with all its wholesome influences is to be inculcated in the next generation it must be done in their youth and chiefly while they are in school.

I desire to see a more intimate relation between our public library and our schools.

I hope in the future that every inducement to use the public library will be put forth to the teachers and pupils

that is possible, and that every privilege will be accorded them in using it that is consistent with present conditions. I also most sincerely hope that the time is not far distant when we shall have a new library building so arranged that many of the limitations now necessary may be removed.

It gives me pleasure to state that within a year the teachers of the city on their petition have been granted certain privileges in the use of the library which have been hitherto withheld. I am pleased also to be able to present at the end of this Report a list of books suitable for young people, most of which are to be found in the library. This list has been compiled from various sources by Mr. George H. Tripp, principal of the Middle Street Grammar school, to whom I am happy to make this acknowledgment for his painstaking work.

A good beginning has been made toward making the public library an active agent in the school work of the city. It is a movement whose future possibilities will depend both upon the recognition of its value by the teachers of the city, and the hearty co-operation of the library authorities.

CONCLUSION.

In concluding, I desire to express to the teachers my sincere appreciation of the co-operation given by them in all matters relating to the regular work of the schools, and for their willingness to undertake new lines of work proposed. To the Committee also my thanks are hereby rendered for its continued confidence and support, and to the individual members for their assistance always willingly accorded me in administering my office.

Respectfully submitted,

WILLIAM E. HATCH,
Superintendent of Schools.

LIST OF TEACHERS,

HIGH SCHOOL.

Summer street, between Mill and North streets.

Grade.

Charles S. Moore, principal,	25 Seventh street,	\$2750
Chas. T. Bonney, Jr., sub-master,	121 Washington street,	1600
Charles R. Allen, science teacher,	84 Spring street,	1600
Sarah D. Ottiwell, assistant,	184 Kempton street,	900
Elizabeth P. Briggs,	366 Union street,	900
Lydia J. Cranston,	129 Elm street,	900
Lucretia N. Smith,	72 Foster street,	900
Mabel W. Cleveland,	81 North street,	850
Mary E. Austin,	512 Kempton street,	900
Helen L. Hadley,	196 Grinnell street,	850
Emma K. Shaw,	72 High street,	900
Edmand E. Baudoin, military instructor,	303 County street,	300

GRAMMAR SCHOOLS.

FIFTH STREET:

Fifth street, corner of Russell street.

	Allen F. Wood, principal,	111 Acushnet avenue,	1900
9	Lydia A. Macreading, assistant,	17 Bonney street,	600
9	Emma B. McCullough,	300 Purchase street,	600
8	Mary E. Allen,	25 Madison street,	600
8	Sarah E. Stoddard,	352 County street,	600
7	Emma A. McAfee,	63 Fifth street,	600
7	Mary W. Leymunion,	55 Hill street,	600
6	Annie C. Hart,	54 Fourth street,	550
6	Mary A. Kane,	127 Grinnell street,	600
5	Grace L. Carver,	147 Acushnet avenue,	600
5	Lottie M. Allen,	118 Fifth street,	475

MIDDLE STREET:

Summer street, between Elm and Middle streets.

	George H. Tripp, principal,	Fairhaven,	1900
9	Helen Ring, assistant,	271 Union street,	600
9	Lucy F. Winchester,	Fairhaven,	600

Grade.

8	Katharine Commerford, assistant,	Ashland street,	\$600
8	Etta M. Abbott,	" 233 Middle street,	600
7	Lucy B. Fish,	" 215 Maxfield street,	600
7	Julia C. Gifford,	" 9 Arch street,	500
6	Helen McCoy,	" 68 Walden street,	550
6	Emma A. Gilman,	" 175 William street,	600
5	Agnes J. Dunlap,	" 117 Hillman street,	600
5	Clara S. Vincent,	" 233 Middle street,	600

PARKER STREET:

Parker street, near County street.

	Francis J. Heavens, principal,	64 Willis street,	1900
9	Anna L. Jennings, assistant,	215 Maxfield street,	600
9	Julia F. Coombs,	" 113 Hillman street,	600
8	Emma D. Larrabee,	" 14 Parker street,	600
8	Susan H. Lane,	" 94 Hillman street,	600
7	Martha A. Hemenway,	" 5 Lincoln street,	600
7	Regina M. Paul,	" 29 Parker street,	550
7 and 6	Angenette Chace,	" 35 Dartmouth street,	550
6	Elizabeth B. Brightman,	" 14 Parker street,	600
6	May L. Pettey,	" 22 Pope street,	600
5	Mariana N. Richmond,	" 34 High street,	600
5	Emily A. Delano,	" East Freetown,	600
5	Mary E. Sturtevant,	" 220 Summer street,	600

THOMPSON STREET GRAMMAR AND PRIMARY:

Thompson street, corner of Crapo.

7	Katharine N. Lapham, principal,	236 Union street,	1200
6	Cora B. Cleveland, assistant,	81 North street,	550
6	Elizabeth M. Briggs,	" 351 County street,	475
5	Mary A. Macy,	" 72 Bedford street,	600
5	Daisy M. Butts,	" 116 Willis street,	550
2	Angela F. Bowie,	" 111 Dartmouth street,	400
1	Leonora B. Hamblin,	" South Orchard street,	550
1	Annie L. Brownell,	" 15 Sherman street,	550

CEDAR GROVE STREET PRIMARY AND GRAMMAR:

Cedar Grove street, near Acushnet avenue.

	Maria B. Clark, principal,	131 Chestnut street,	800
4	Flora E. Estes, assistant,	535 Purchase street,	550
4	Kate Sweet,	" 287 Kempton street,	550
3	Isabella F. Winslow,	" 506 Purchase street,	550
3	Julia W. Corish,	" 86 Mill street,	425

Grade.

3	Florence A. Chaffin, assistant,	35 Eighth street,	\$500
2	Annie G. Brawley, "	68 Walden street,	550
2	Edith K. Weeden, "	614 County street,	550
2	Elizabeth S. Foster, "	175 William street,	550
1	Mary J. Eldridge, "	314 South Second street,	550
1	Caroline E. Bonney, "	52 Bonney street,	425
1	Ruth E. Pease, "	658 County street,	450
1	A. Gertrude Wheaton, "	345 Cottage street,	450
1	Laura C. McCabe, "	153 Grinnell street,	400
7 and 6	Lizzie E. Omey, "	63 Thomas street,	600
5	Alice A. Richardson, "	65 William street,	475

HARRINGTON TRAINING SCHOOL:

Court street, corner of Tremont street.

Josephine B. Stuart, principal,	464 County street,	1500
Anna W. Braley, vice-principal,	619 County street,	1000
Belle Almy, assistant,	201 Cottage street,	500
Fannie M. Spooner, "	70 Morgan street,	450
Kate Moore, "	101 Park street,	450
Grace W. Russell, "	152 Purchase street,	425

PRIMARY SCHOOLS.

ACUSHNET AVENUE:

Acushnet avenue, near Grinnell street.

4	Jane C. Thompson, principal,	100 Washington street,	750
4	Nellie A. Walker, assistant,	25 Madison street,	550
3	Hattie L. Finlan, "	186 County street,	550
3	Elizabeth Bennett, "	46 State street,	550
2	Caroline O. Pierce, "	1 Spruce street,	550
1 and 2	Caroline S. Silva, "	81 Washington street,	550
1	Sarah A. Winslow, "	315 County street,	550
1	Julia M. Pilling, "	24 Seventh street,	450
1	Margaret H. Holmes, "	661 County street,	500
1	Harriet L. Cornell, "	151 Middle street,	450

I. W. BENJAMIN SCHOOL:

Division street, between Acushnet avenue and Second street.

	Jane E. Gilmore, principal,	245 Acushnet avenue,	800
4	Susan M. Tompkins, assistant,	2 Court street,	550
4	Nellie W. Davis, "	115 Sumner street,	550
3	Dora A. DeWolf, "	169 Middle street,	450

Grade.

3	Sarah E. Kirwin,	assistant,	101 South Sixth street,	\$550
3	Marion H. Swasey,	"	Cor. County & Forest sts.	425
2	Alice A. Taylor,	"	299 County street,	550
2	Sophie T. Anthony,	"	182 Fourth street,	400
2	Eleanor V. Tripp,	"	12 Sherman street,	500
1	Annie C. O'Connor,	"	299 County street,	550
1	Mabel Bennett,	"	79 Chestnut street,	500
1	Julia A. Hunt,	"	20 Court street,	425
1	Emma L. Gartland,	"	51 Washington street,	425

CEDAR STREET:

Cedar street, corner of Maxfield street.

4	Annie S. Homer,	principal,	117 Hillman street,	650
4	Bessie P. Peirce,	assistant,	130 Summer street,	550
2	Abby D. Whitney,	"	59 Hill street,	550
1 and 2	Annie L. Edwards,	"	62 North street,	550
1	Willetta B. Nickerson,	"	85 Morgan street,	550
1	Mabel L. Hathaway,	"	743 County street,	500

CANNONVILLE:

Rockdale avenue.

4 and 3	Adelaide J. McFarlin,	principal,	Cottage & Kempton sts.,	550
2 and 1	Florence A. Poole,	assistant,	168 Mill street,	425

DARTMOUTH STREET:

Dartmouth street, corner of Hickory street.

3	Isadore F. Eldridge,	principal,	44 Sherman street,	700
3 and 4	M. Eva Schwall,	assistant,	11 Bonney street,	550
3	Edith M. B. Taber,	"	82 Walden street,	500
2	Sarah E. Slade,	"	37 Allen street,	400
2	Nellie H. Cook,	"	Masonic Building,	500
1	Annie F. Smith,	"	18 Bonney street,	550
1	Grace H. Potter,	"	100 Madison street,	550
1	Sara H. Kelley,	"	24 Seventh street,	550

THOMAS A. GREENE SCHOOL:

Madison street, corner of Fourth street.

4	Sarah H. Cranston,	principal,	129 Elm street,	650
3 and 4	Grace Covell,	assistant,	128 School street,	500
3	Eliza H. Sanford,	"	112 Fourth street,	550
2	Sarah E. Sears,	"	21 Griffin street,	550
1 and 2	Lillie C. Tillinghast,	"	32 North Sixth street,	550
1	Annie L. Macreading,	"	17 Bonney street,	550
2	Ruth E. Howland,	"	Bonney street,	400

SYLVIA ANN HOWLAND SCHOOL:

Pleasant street, between High and Kempton streets.

Grade.

4	Carrie E. Footman, principal,	72 State street,	\$600
3	Mary J. Graham, assistant,	12 Court street,	550
2	Helen J. Kirk, “	27 Franklin street,	550
1	Amelia Lincoln, “	87 Walden street,	550

LINDEN STREET:

Linden street, near Ashland street.

4	Elizabeth P. Spooner, principal,	129 Hillman street,	600
3	Isabella Luscomb, assistant,	245 Cedar street,	550
2	Carrie L. Chapman, “	Main street, Fairhaven,	500
1	Ruth M. Tripp, “	417 Union street,	425
1	Lucy S. Leach, “	163 Maxfield street,	550

MERRIMAC STREET:

Merrimac street, corner of State street.

4	Sarah H. Hewins, principal,	111 Merrimac street,	600
3	Addie West, assistant,	232 Pleasant street,	550
2	Annie I. Dexter, “	11 Franklin street,	550
1	Harriet S. Damon, “	223 Pleasant street,	550

MAXFIELD STREET:

Maxfield street, corner of Pleasant street.

1	Mary B. White, principal,	57 Foster street,	600
2	Annie E. Pearce, assistant,	151 Hillman street,	550
3	Clara C. M. Gage, “	78 Mill street,	550
4	Mary E. Pasho, “	169 Grinnell street,	550

UNGRADED SCHOOLS.

ACUSHNET

Acushnet avenue.

Charlotte C. Carr,	principal,	56 Spring street,	700
Belle B. Wheeler,	assistant,	2 Mt. Vernon street,	600
Harriet N. Hyatt,	“	Tarkiln Hill road,	450

CLARK'S POINT SCHOOL:

Mary E. McAuliffe,	principal,	380 Purchase street,	500
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NORTH SCHOOL:

Mary I. Ashley,	principal,	Clifford,	600
Mary G. Fuller,	assistant,	Clifford,	360

PLAINVILLE SCHOOL:

Mary E. Haney, principal,	Shawmut,	\$600.00
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ROCKDALE SCHOOL:

Lillian T. Thomas, principal,	Box 275,	550.00
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NORTH MILL:

In Merrimac street school building.

Emma R. Wentworth, principal,	117 Hillman street,	682.00
Mary L. Hillman, assistant,	81 Mill street,	467.50

SOUTH MILL:

In Thompson street school building.

Lucy J. Remington, principal,	67 Fifth street,	682.00
Ruby M. Tripp, assistant,	407 Cedar street,	467.50

SPECIAL TEACHERS.

DRAWING:

Mary W. Gilbert, supervisor,	20 Seventh street,	1,200.00
Katharine M. Crabtree, assistant, and teacher of drawing at High school,	26 Seventh street,	800.00

SINGING:

F. H. Butterfield, supervisor,	40 Chestnut street,	1,500.00
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MANUAL TRAINING:

Edwin R. King,	175 William street,	1,200.00
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COOKING:

Grace Greenwood,	175 William street,	600.00
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SEWING:

Carrie H. Richmond, principal,	43 Fifth street,	600.00
Eliza A. Smalley, assistant,	71 South Sixth street,	525.00
Gertrude H. Leonard, " "	23 Seventh street,	525.00

EVENING DRAWING SCHOOL.

In High school building.

George H. Nye, principal,	323 Cottage street,	\$9.00 per week.
Katharine M. Crabtree, ass't,	26 Seventh street,	6.00 "
Oliver H. Gardner, " "	197 Chestnut street,	6.00 "

EVENING ELEMENTARY SCHOOLS.

FIFTH STREET:

George H. Tripp,	\$6.00 per week.
Grace H. Potter,	3.00 "
Nellie H. Cook,	3.00 "
Julia C. Gifford,	3.00 "
Lizzie M. Briggs,	3.00 "
Lillie C. Tillinghast,	3.00 "
C. T. Johnson,	3.00 "
Ida F. McAfee,	3.00 "
Mary J. Graham,	3.00 "
Annie L. Burbank,	3.00 "
Ruth E. Howland,	3.00 "
Marion H. Swasey,	3.00 "
Sarah E. Stoddard,	3.00 "
Kate Moore,	3.00 "
Gillian Gordon,	3.00 "

PARKER STREET:

Emma R. Wentworth,	6.00 "
Mary F. Wilde,	3.00 "
Emma D. Larrabee,	3.00 "
Regina M. Paul,	3.00 "
Julia W. Corish,	3.00 "
Sara L. Tallman,	3.00 "
Esther W. Paul,	3.00 "
Susan Butts,	3.00 "

MERRIMAC STREET:

Mary A. Kane,	6.00 "
Harriet L. Cornell,	3.00 "
Sarah A. Kirwin,	3.00 "
Florence A. Poole,	3.00 "
Margaret Holmes,	3.00 "
Ruth E. Pease,	3.00 "
Lila D. Haney,	3.00 "

THOMPSON STREET:

Joseph P. Kennedy,	6.00 "
Janet Hunter,	3.00 "
Kate K. Whelden,	3.00 "
Annie M. King,	3.00 "
Helen Ring,	3.00 "
Belle Almy,	3.00 "

Emma L. Gartland,	\$3.00 per week.
Fannie Spooner,	3.00 "
Sophie T. Anthony,	3.00 "
Mary L. Rogers,	3.00 "

CEDAR GROVE STREET:

Francis J. Heavens,	6.00 "
Helen McCoy,	3.00 "
Annie G. Brawley,	3.00 "
Nannie P. Slocum,	3.00 "
Myra S. Ashley,	3.00 "
Lillie McAfee,	3.00 "
Mary R. Hinckley,	3.00 "
Dora A. DeWolf,	3.00 "
Flora E. Estes,	3.00 "
Lucia E. Bliss,	3.00 "
Ruth A. Wilde,	3.00 "
Jennie Gardner,	3.00 "
Mary E. McAuliffe,	3.00 "
Abby R. Johnson,	3.00 "
Sarah Peckham,	3.00 "
Anna I. Hathaway,	3.00 "
E. Laycock,	3.00 "

1894—CITY DOCUMENT No. 7.

SIXTEENTH ANNUAL REPORT

OF THE

BOARD OF HEALTH,

City and Quarantine Physician,

OF THE

CITY OF NEW BEDFORD,

TO THE

CITY COUNCIL,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

REPORT.

OFFICE OF BOARD OF HEALTH,

January 1, 1895.

*To His Honor, the Mayor, and Gentlemen of the City
Council of the City of New Bedford.*

GENTLEMEN : — The Board of Health herewith respectfully submit their sixteenth annual Report.

The organization of the Board is as follows : —

Nathaniel Hathaway, Chairman.

William N. Swift, Physician to the Board and Quarantine Physician.

William G. Kirschbaum.

Employes of the Board : —

William E. Macomber, Health Inspector.

Louis H. Richardson, Inspector of Plumbing.

Susie J. Small, Clerk.

Both the last named hold their appointment under civil service rules.

Feb. 15, 1894. At a meeting of the Mayor and Aldermen the sum of twelve thousand nine hundred and twenty dollars (\$12,920) was appropriated to defray the expenses of the Board for the year 1894. This amount was increased by a transfer to seventeen thousand four hundred and twenty dollars (\$17,420).

This amount was expended as follows : —

RECEIPTS.

General appropriation,	\$12,920.00
Special appropriation,	4,500.00
	<hr/>
	\$17,420.00
Credit,	10.00

EXPENDITURES.

Salaries,	\$2,950.68
Garbage,	12,000.00
Incidentals,	1,785.12
	<hr/>
	\$16,735.80

INCIDENTALS.

Louis H. Richardson, horse car tickets,	\$5.00	
Bates & Kirby, rent,	41.67	
Isaac L. Ashley, horse hire,	15.00	
Dr. Charles A. Pratt, investigating contagious diseases,	4.00	
Dr. W. N. Swift, examinations,	25.00	
H. S. Hutchinson, framing map,	25.50	
Nathaniel Hathaway, office expenses,	14.45	
N. B. Gas & Edison Light Co.,	.75	\$131.37
Louis H. Richardson,	\$5.00	
Dr. Charles A. Pratt,	3.00	
Southern Mass. Telephone Co.,	17.50	
Bates & Kirby,	41.67	
Evening Journal Co.,	3.00	
Louis H. Richardson,	5.00	
Bates & Kirby,	41.67	
Evening Journal Co.,	12.75	
R. W. Taber,	6.25	135.84
N. B. Gas & Edison Light Co.,	\$.75	
N. B. Gas & Edison Light Co.,	.75	
Manuel Brown, labor,	28.00	
Manuel Brown, labor,	1.00	
Dr. W. N. Swift,	7.36	
Dr. W. N. Swift, use of horse,	1.00	
DeWolf & Vincent,	1.10	
E. T. Wilson, services,	5.00	
Dr. C. A. Pratt,	12.00	
Bates & Kirby,	41.67	98.63

W. E. Macomber, services as janitor,	\$50.00	
Bates & Kirby,	41.66	
N. B. Gas & Edison Light Co.,	.75	
Evening Journal Co.,	12.50	
Evening Journal Co., {		
Evening Journal Co., }	3.25	
Evening Journal Co.,	3.50	
Evening Journal Co.,	12.15	
Evening Journal Co.,	12.00	
R. W. Taber,	9.50	
Dr. C. A. Pratt,	7.00	
Louis H. Richardson,	5.00	157.31
Bates & Kirby,	\$41.66	
Ballard & Kirschbaum, telephone index,	1.00	
Samuel Peckham,	2.50	
Dr. Anna W. Croacher, vaccinating,	11.00	
Evening Journal Co.,	2.15	
Evening Journal Co.,	3.25	
D. J. Kane & Bro.,	3.85	
I. L. Ashley, horse hire,	3.00	
R. W. Taber,	2.53	
E. Anthony & Sons,	5.62	
N. B. Gas & Edison Light Co.,	.75	
Evening Journal Co.,	2.84	
Dr. W. N. Swift,	34.00	
Nathaniel Hathaway, office expenses,	11.15	
Mercury Publishing Co.,	5.05	
Mercury Publishing Co.,	6.00	
Louis H. Richardson,	5.00	141.35
Henry J. Taylor,	\$1.25	
Dr. C. A. Pratt,	8.00	
N. B. Tow Boat Co.,	15.00	
Edgar H. Gammons,	100.00	
N. B. Gas & Edison Light Co.,	.75	
Bates & Kirby,	41.66	166.66
Louis H. Richardson,	\$5.00	
Bates & Kirby,	41.66	
Southern Mass. Telephone Co.,	17.50	
W. A. Greenough & Co.,	2.00	
Samuel Peckham,	2.00	
Robert W. Taber,	9.25	
N. B. Gas & Edison Light Co.,	.75	
Dr. C. A. Pratt,	10.00	88.16

Louis H. Richardson,	\$5.00	
Manuel Brown,	20.00	
N. B. Tow Boat Co.,	20.00	
Bates & Kirby,	41.67	
I. L. Ashley,	4.00	
R. W. Taber,	2.56	
Dr. C. A. Pratt,	24.00	
N. B. Gas & Edison Light Co.,	.75	
Dr. W. N. Swift,	30.00	
Dr. D. C. Ashley,	18.50	
"Volunteer,"	70.00	236.48

Louis H. Richardson,	\$5.00	
Bates & Kirby,	41.67	
N. B. Tow Boat Co.,	5.00	
Dr. A. W. Croacher,	32.50	
Evening Journal Co.,	2.50	
R. W. Taber,	1.10	
Nathaniel Hathaway, office expenses,	10.60	
Dr. C. A. Pratt,	19.00	
N. B. Gas & Edison Light Co.,	.75	118 12

Louis H. Richardson,	\$5.00	
W. E. Macomber,	50.00	
E. H. Gammons, use of horse,	4.50	
Bates & Kirby,	41.67	
Dr. A. W. Croacher,	1.50	
Kirby & Hicks,	2.50	
Evening Journal Co.,	2.25	
Evening Journal Co.,	13.75	
Dr. C. A. Pratt,	17.00	
N. B. Gas & Edison Light Co.,	.75	
N. B. Gas & Edison Light Co.,	.40	
R. W. Taber,	.75	
F. S. Brightman, reinterment book,	8.25	
Dr. W. N. Swift,	31.00	179.32

Samuel Peckham,	\$2.50	
Bates & Kirby,	41.67	
I. L. Ashley,	2.00	
Dr. C. A. Pratt,	61.00	
E. Anthony & Sons,	6.60	
Evening Journal Co.,	3.90	
Evening Journal Co.,	1.78	
Mercury Publishing Co.,	5.82	
N. B. Gas & Edison Light Co.,	.61	

C. H. & H. A. Lawton, vaccine points, etc.,	63.70	
R. W. Taber,	10.10	
N. B. Tow Boat Co.,	10.00	
F. M. Douglass, p. p. tubes,	7.20	
Nathaniel Hathaway, roll front case,	72.00	
Nathaniel Hathaway, diphtheria tests,	28.00	246.88
Whole amount,		<u>\$1,785.12</u>
Whole amount appropriated,		\$17,420.00
Whole amount expended, including salaries, etc.,		<u>16,735.80</u>
Balance unexpended,		\$684.20
Credit,		<u>10.00</u>
Balances,		<u>\$694.20</u>

This balance was transferred to unappropriated funds.

May 9, 1894. A license was given to Edgar H. Gammons to remove the contents of privy vaults and cess-pools.

May 25, 1894. William G. Kirschbaum was appointed a member of the Board of Health for the term of two years ending first Monday in February, 1896.

May 31, 1894. It was voted that no permits should be given to enter the Davis street sewer until a proper outlet was provided.

June 1, 1894. Licenses were granted to nine soap grease collectors.

June 23, 1894. Voted to proceed to act in accordance with chapter 455 of the Acts of 1894.

That Nathaniel Hathaway represent the Board of Health on the Board of Examiners, provided by chapter 455. William Deacon was appointed the third member of said Board of Examiners until May 1, 1895.

August 3, 1894. Dr. D. C. Ashley reported to this Board a case of tuberculosis existing in a cow belonging to George T. Bennett, Highland street. The cow was quarantined and the case reported to the State Board of Cattle Commissioners.

September 17, 1894. Dr. D. C. Ashley reported hog cholera existing at No. 6 engine house. Six hogs died with said disease.

October 3, 1894. Voted to grant certificates to thirty-five journeymen and thirty-three master or employing plumbers.

Received from said plumbers the sum of seventy-nine dollars and fifty cents (\$79.50).

Expended the sum of forty-seven dollars and sixteen cents (\$47.16), leaving to the credit of the Board thirty-two dollars and thirty-four cents (\$32.34).

October 12, 1894. Voted to hereafter require written permission from parties owning land through which it is necessary to pass in order to enter the sewer.

October 20, 1894. Voted that in accordance with the regulation of the Board the apparatus used in the work of emptying privy vaults and cesspools be examined by the Board of Health every three months.

October 30, 1894. Dr. D. C. Ashley reported tuberculosis in four cows, two belonging to Z. Spooner and two belonging to G. C. Hatch.

November 6, 1894. Voted that the order of October 14, 1893, be amended so as to read as follows:—

To make the following addition to the list of diseases in the opinion of the Board dangerous to the public health, within the meaning of chapter 80, section 79, of the Public Statutes: Measles, whooping cough, membranous croup, typhoid fever and typhus fever.

November 8, 1894. Voted to have two hundred and fifty circulars printed of the following:—

You are hereby notified that the Board of Health considers cholera (Asiatic), small-pox, typhus fever, diphtheria, measles, typhoid fever, whooping cough and membranous croup diseases dangerous to the public health within the meaning of section 2, chapter 188, Acts of

1891 of the Public Statutes. Physicians must report all cases of such diseases coming under their notice within the city.

A copy was sent to every physician in the city.

The following is the section referred to:—

SECTION 2. When a physician knows that a person whom he is called to visit is infected with small-pox, diphtheria, scarlet fever, or any other disease dangerous to the public health, he shall immediately give notice thereof in writing over his own signature to the Selectmen or Board of Health of the town; and if he refuses or neglects to give notice, he shall forfeit for each offence not less than fifty nor more than two hundred dollars.

December 3, 1894. Voted to grant a license to Samuel Margulis to carry on the business of slaughtering cattle within the limits of the city on conditions.

December 10, 1894. Voted to employ Prof. H. C. Ernst of Harvard Bacteriological Laboratory in making examinations to diagnosticate cases of diphtheria.

Voted to charge three dollars and twenty-five cents (\$3 25) for first examination, which amounts cover expressage to and from Boston.

Voted that the Board assume expense of all tests where patients are unable to pay the costs, such patients to procure certificates from the Overseers of the Poor.

During the year each case of typhoid fever that has been reported to the Board of Health has been thoroughly investigated.

We believe that the comparatively small number of cases of typhoid fever reported this year has been in a measure due to the precautions taken by the Board.

On October 1 the attention of the Board was called to a case on the corner of Madison and South Water streets. The case seemed very much like small-pox, but after careful study and consultation it was decided that the disease was not small-pox. The result showed the diagnosis to be correct.

In December twenty-two cases of diphtheria were reported and seven deaths. The Board employed Dr. Charles A. Pratt to investigate each case. Arrangements were made with Prof. Harold C. Ernst of the Harvard Medical School to make examinations for the bacilli of diphtheria in cases sent to him. The cost of such examination was to be paid by the patient if able, but in each case where it was advised by the Overseers of the Poor the Board of Health was to bear the expense.

The cases of diphtheria reported were of malignant type as shown by the death rate. The precautions taken by the Board undoubtedly had much to do with preventing a widespread epidemic.

Number of permits granted by the Board during the year 1894 : —

To reinter bodies, 122.

To enter sewers, 287.

To empty privy vaults and cesspools, 67.

Livery and boarding stables, 9.

Number of applications for keeping swine during the the year 1894, 52. Of this number 50 were granted.

Number of soap grease collectors, 10.

Work accomplished during the year with relation to the plumbing and drainage of buildings : —

Number of permits issued, 627.

New buildings plumbed, 205.

Alterations in old work, 337.

Number of inspections made, 1,254.

Number of complaints investigated of old plumbing and drainage, 60.

Number of complaints, systems condemned, 32.

All the work has been done in strict accordance with the regulations of the Board.

Following is the number of nuisances for the year 1894 :

Filthy and overflowing vaults and cesspools, 134.

- Defective vaults, 37.
- Defective plumbing, 30.
- Defective and clogged drains, 21.
- Filthy premises, 35.
- Filthy barn cellars, 6.
- Filthy ash barrels, 41.
- Filthy water closets, 14.
- Water in cellars, 11.
- Gas in cellars, 9.
- Filthy manure piles, 4.
- Hens in cellars, 10.
- Bad smelling sand-catchers, 15.
- Dead animals on beach, 6.
- Unlicensed pigs, 3.
- Emptying vaults without license, 3.
- Location of privy vaults, 18.
- Pig-pen nuisances, 5.
- Fish market nuisance, 4.
- Feeding cows on swill, 3.
- Privy vaults ordered removed, 20.
- Notices served, 89.
- Houses placarded, 157.
- Collecting swill without a license, 4.
- Permits to clean vaults (premises visited on application), 33.
- Complaints made without cause, 45.
- Inspections made, 2,690.

MORTUARY REPORT FOR THE YEAR 1894.—*Continued.*

CAUSE OF DEATH.	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
Fracture base of skull, . . . . .	.	.	.	.	.	2	.	.	.	1	.	.	3
Fracture of spine, . . . . .	.	.	.	.	.	.	.	.	.	.	1	.	1
Gastritis, . . . . .	.	.	1	.	.	.	1	.	.	.	1	1	4
Grave's disease, . . . . .	.	.	.	.	.	1	.	.	.	.	.	.	1
Gangrene, . . . . .	.	.	.	.	.	1	.	.	.	.	.	1	2
Gastric ulcer, . . . . .	.	.	.	.	.	.	.	.	.	.	.	1	1
Heart disease,	12	8	10	6	8	13	6	6	7	4	6	6	92
Hydrocephalus,	1	.	.	.	1	.	.	.	.	.	1	1	4
Hemorrhage, . . . . .	.	.	.	.	1	.	.	.	.	.	.	.	1
Hemorrhage of bladder, . . . . .	.	1	.	.	.	.	.	.	.	.	.	.	1
Hemorrhage, pul., . . . . .	.	.	.	1	.	.	.	.	.	.	.	.	1
Hemorrhage from umbilical cord, . . . . .	.	.	1	.	.	.	.	.	.	.	.	.	1
Hemorrhage from stomach, . . . . .	.	.	.	.	1	.	.	.	.	.	.	1	2
Hanging (judicial execution), . . . . .	.	.	.	.	.	.	.	.	.	.	1	.	1
Hanging (suicide), . . . . .	.	.	.	.	.	.	.	.	2	.	.	.	2
Haematemesis, . . . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Hemiplegia, . . . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Influenza, epidemic,	3	.	1	1	.	1	.	.	.	.	.	.	6
Intestinal obstruction,	1	.	.	.	1	.	.	.	.	.	.	.	2
Internal malformation, . . . . .	.	.	.	1	.	.	.	.	.	.	.	.	1
Injury at birth, . . . . .	.	.	.	1	.	.	.	.	.	.	1	.	2
Kidney disease,	3	4	7	4	2	4	7	.	3	4	1	4	43
Liver, cirrhosis of,	1	.	.	.	.	.	.	.	.	.	.	.	1
Liver, disease of, . . . . .	.	1	1	.	1	.	.	.	.	.	.	.	3
Laryngitis, . . . . .	.	.	.	.	1	.	.	.	.	.	.	.	1
Laryngitis, tub., . . . . .	.	.	.	.	.	.	.	.	.	1	1	1	3
Laryngitis, strid., . . . . .	.	.	.	.	.	.	.	.	.	.	1	.	1
Locomotor ataxia, . . . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Meningitis,	2	1	1	2	3	1	2	3	2	2	2	3	24
Meningitis, cer., . . . . .	.	.	.	.	.	.	.	.	.	1	1	.	2
Meningitis, cerebro-spinal,	2	1	.	.	.	.	.	.	.	1	.	.	4
Meningitis, tub., . . . . .	.	.	1	3	.	.	.	2	3	.	1	.	10
Membranous croup, . . . . .	.	.	.	.	.	.	.	.	.	1	.	.	1
Malnutrition, . . . . .	.	.	.	.	.	.	.	1	2	.	.	.	3
Malaria, . . . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Myelitis, . . . . .	.	.	.	.	.	.	.	.	1	.	1	.	2
Neuritis, multiple, . . . . .	.	.	.	.	.	.	.	.	.	1	.	.	1
Old age,	2	3	3	2	1	4	2	1	1	1	.	3	23
Œdema of lungs, . . . . .	.	.	.	1	.	.	.	.	.	.	.	.	1
Pneumonia,	14	10	11	7	11	7	2	1	2	5	4	7	81
Pneumonia, broncho, . . . . .	.	.	.	1	.	1	.	.	.	.	.	.	2
Pneumonia, pleuro, . . . . .	.	.	1	1	.	1	.	.	.	.	.	.	3
Phthisis, pul.,	4	9	10	10	7	12	8	8	9	10	6	12	105
Peritonitis,	1	2	1	.	.	2	.	1	1	1	1	1	11
Peritonitis, puerperal, . . . . .	.	.	.	.	.	1	.	.	.	.	.	.	1
Peritonitis, tub., . . . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Premature birth,	1	.	1	1	1	2	.	2	.	1	3	3	15

MORTUARY REPORT FOR THE YEAR 1894.—*Continued.*

CAUSE OF DEATH.	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
Prostrate gland, enlarged, . . .	1	.	.	.	.	.	.	.	.	.	.	.	1
Purpura hemorrhagica, . . .	.	.	.	.	.	.	.	2	.	.	.	1	3
Pyæmia, . . .	.	1	.	.	.	.	.	.	.	.	.	.	1
Paralysis, . . .	2	3	.	2	2	2	.	.	1	2	3	1	18
Rachitis, . . .	.	.	.	.	.	1	.	.	.	1	.	.	2
Rheumatism, . . .	.	.	.	.	.	.	.	.	.	.	.	1	1
Suffocation, . . .	1	.	.	.	.	.	.	.	.	.	.	2	3
Septicæmia, . . .	.	.	.	1	.	1	2	1	1	.	.	.	6
Scalds, . . .	.	.	.	.	.	.	1	.	.	.	.	1	2
Tuberculosis, . . .	.	2	1	.	2	4	2	3	2	4	.	.	20
Tumor, cer., . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Tumor, abdominal, . . .	.	.	.	.	.	.	.	.	.	1	.	.	1
Tetanus, . . .	.	.	.	.	.	.	.	1	.	.	.	.	1
Uterine fibroid tumor, . . .	1	.	.	.	.	.	.	.	.	.	.	.	1
Unknown, . . .	.	1	2	.	.	1	.	1	1	4	1	3	14
Wound of brain (pistol shot), . .	.	.	.	.	.	.	1	.	.	.	.	.	1
Whooping cough, . . .	.	.	.	.	.	.	1	.	1	.	.	.	2

	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
Whole number of deaths, . . .	85	81	84	82	80	97	88	98	105	78	63	96	1037
Deaths under five years, . . .	30	26	31	34	40	31	54	64	55	25	28	46	464
Stillborn, . . .	4	8	11	2	10	8	8	3	13	7	8	9	91

CASES OF CONTAGIOUS AND INFECTIOUS DISEASES.

	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
Scarlet fever, . . .	16	27	26	15	20	8	1	7	9	13	21	28	191
Measles, . . .	75	51	13	11	6	5	.	1	3	.	.	.	165
Whooping cough, . . .	11	4	2	.	4	4	3	2	2	3	3	8	46
Diphtheria, . . .	3	1	3	1	1	1	0	1	1	1	1	22	36
Typhoid fever, . . .	5	3	5	8	9	8	1	12	28	21	21	16	137
Membranous croup, . . .	.	.	.	.	.	.	.	.	.	.	2	.	2
Total, . . .													577

Annual death rate per 1000, (estimated population being 60,000), 17.28.

Number of vaccinations for the year 1894, 92.

Number of re-vaccinations for the year 1894, 29.

Total, 121.

Respectfully submitted.

Board { NATHANIEL HATHAWAY,
of { W. N. SWIFT,
Health, { WILLIAM G. KIRSCHBAUM.

IN BOARD OF ALDERMEN,

April 11, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD,

City Clerk.

IN COMMON COUNCIL,

4 mo., 11, 1895.

Concurred.

WILLIAM A. MACKIE,

Clerk.

1894—CITY DOCUMENT No. 8.

... T M E ...

AUDITOR'S ANNUAL REPORT

OF THE

RECEIPTS AND EXPENDITURES

OF THE

CITY OF NEW BEDFORD,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

CITY OF NEW BEDFORD.

AUDITOR'S OFFICE,

March 15, 1895.

To the Honorable the City Council of New Bedford.

GENTLEMEN:—Herewith I have the honor to submit the Annual Report of all the Receipts and Expenditures of the city for the financial year ending on the first Monday in January, 1895, together with a statement of the city debt, a schedule of the real and personal property belonging to the city and the estimated value thereof, and such other statements as I have deemed of interest.

Yours respectfully,

GEORGE W. PARKER,

City Auditor.

AUDITOR'S REPORT.

JAMES H. HATHAWAY, ESQ., CITY TREASURER,
IN ACCOUNT WITH THE CITY OF NEW BEDFORD.

DR.

1894, January 1, to balance of cash,	\$8,416.28
Appropriations, general, taxes 1894,	\$657,587.59
" " 1893,	14,486.56
" " 1892,	4,241.96
" " 1891,	87.57
" " 1890,	5.00
" " 1889,	739.70
" " 1888,	2,347.78
" special, 1894,	200,000.00
" " 1893,	121,000.00
" " loan, 1894,	75,000.00
Board of Health,	10.00
Cemeteries, sale of lots,	4,045.00
Cemetery funds,	1,840.00
Commonwealth of Mass., chap. 279,	1,662.00
" " " 301,	8,784.17
" " " 447,	10.00
Fire department,	795.00
Free Public Library, trustees of,	3,726.00
" " " dog fund,	1,337.59
Highways and streets,	15,865.68
" " collecting ashes,	892.26
" " moving snow and ice,	5.00
Incidentals,	242.10
New Bedford School Committee, Howland fund,	3,000.00
New Bedford School Committee, Jonathan Bourne prize fund,	60.00

AUDITOR'S REPORT.

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New Bedford Water Works,	91,187.11	
“ “ further supply,	18,632.00	
Parks commission,	172.95	
Permanent debt,	140,403.33	
Police department,	1,050.40	
Poor department,	36.00	
“ “ emergency fund,	40.26	
Public schools, incidentals,	17.57	
“ “ pay of teachers,	11.25	
“ “ dog fund,	1,337.59	
Real estate tax account,	641.99	
Sewers, general account,	3,677.05	
“ Belleville avenue, No. 4,	25.21	
“ Central engine house drain,	1.48	
“ Davis street,	153.89	
Sinking funds,	12,631.39	
Temporary loan,	410,000.00	
Unappropriated funds,	179,870.89	1,977,661.32
		<u>\$1,986,077.60</u>

AUDITOR'S REPORT.

JAMES H. HATHAWAY, ESQ., CITY TREASURER,
IN ACCOUNT WITH THE CITY OF NEW BEDFORD.

CR.

Board of Health,	\$16,735.81
Cemeteries,	11,662.76
" sale of lots,	3,320.79
Commonwealth of Mass., chap. 279,	2,858.50
" " 301,	9,484.30
" " 395,	210.00
" " 447,	3,656.17
Court judgments,	1,471.34
Election funds,	3,778.11
Engineering department,	6,253.18
Fire department,	61,619.35
Fire department, engine No. 5,	3,500.00
" " " No. 8,	3,500.00
Free Public Library,	5,970.00
" " " subject catalogues,	480.00
" " " trustees of,	3,966.92
" " " dog fund,	1,337.33
Highways and streets,	126,719.45
" " emergency fund,	1,810.51
" " collecting ashes,	7,658.63
" " moving snow and ice,	1,505.00
Incidentals,	31,360.96
Layout and acceptance Sears court,	538.00
License commission,	157.39
Lighting the streets,	41,738.50
New Bedford and Fairhaven bridge,	2,789.25
New Bedford School Committee, Howland fund,	3,190.25

AUDITOR'S REPORT.

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New Bedford School Committee, Jonathan	
Bourne prize fund,	60.00
New Bedford Water Works,	86,560.64
" " " " further supply,	484.05
Parks commission,	23,782.13
Parks and squares,	676.82
Permanent debt,	234,223.73
Platting system,	15,810.72
Police department,	92,677.37
Poor department,	45,165.62
" " emergency fund,	2,920.03
Printing, binding and stationery,	5,266.53
Public schools, incidentals,	36,177.25
" " pay of teachers,	102,350.74
" " repairs of buildings,	5,140.55
" " dog fund,	1,011.67
" " fuel,	6,336.43
" " cooking school,	38.90
" " manual training,	752.97
Real estate tax account,	1,235.13
Repairs of city property,	14,262.83
Acushnet avenue schoolhouse addition,	13,040.99
" " " heating,	3,818.37
Central police station,	3,293.12
Engine house, Acushnet ave. and Davis st.,	11,579.41
Engine house, Acushnet ave. and Davis street,	
heating,	1,018.78
Schoolhouse lot, Clark street,	6,000.00
" Madison and Fourth streets,	33,675.65
" " " " heating,	3,800.00
Ward room, ward 3, precinct 5,	75.00
Salaries,	20,304.77
Sewers, general account,	18,362.90
Acushnet avenue, lowering,	106.16
Acushnet avenue, No. 19,	291.96
Beetle street, No. 2,	1,115.17
Belleville avenue, No. 4,	674.62
Belleville avenue, No. 5,	122.09
Bonney street,	24,936.32
Central engine house drain,	301.48
Chancery street,	144.73
Clark street, No. 3,	1,081.62
Copper street,	2,000.00
Davis street,	1,917.11
Elm street,	147.15

Front and Commercial streets,	1,508.80	
Maple street No. 2,	2,536.06	
Market and Pleasant streets,	329.45	
Mitchell street,	644.93	
Purchase street, No. 10,	1,173.29	
Rounds street,	230.89	
Washburn street,	707.21	
Coggeshall street bridge,	30,000.00	
Sinking funds,	83,751.39	
Temporary loans,	490,000.00	
Unappropriated funds,	15,785.91	\$1,806,681.94
City Treasurer, balance of cash,		179,395.66
		<hr/>
		\$1,986,077.60

EXPENDITURES IN DETAIL.

APPROPRIATIONS, GENERAL, 1894.

DR.

Appropriations, special, 1893,	\$56,171.80	
Board of Health,	12,920.00	
Cemeteries,	5,320.00	
Commonwealth of Mass., chap. 279,	1,200.00	
“ “ “ 447,	2,400.00	
Engineering department,	3,800.00	
Fire department,	38,000.00	
Free Public Library,	5,970.00	
Highways and streets,	71,020.00	
“ “ collecting ashes,	7,000.00	
“ “ moving snow and ice,	1,500.00	
Incidentals,	15,200.00	
Lighting the streets,	26,600.00	
New Bedford and Fairhaven bridge,	2,000.00	
New Bedford Water Works,	12,000.00	
Permanent debt,	95,000.00	
Police department,	62,320.00	
Poor department,	31,160.00	
Printing, binding and stationery,	5,320.00	
Public schools, incidentals,	22,420.00	
“ “ pay of teachers,	74,480.00	
“ “ repairs of buildings,	4,940.00	
“ “ fuel,	4,560.00	
Repairs of city property,	3,040.00	
Salaries,	18,715.00	
Sewers, general account,	15,000.00	
Coggeshall street bridge,	30,000.00	
Sinking funds,	71,120.00	\$699,176.80

CR.

By cash receipts, as per Treasurer's report,	\$657,587.59	
January 7, 1895. Balance,	41,589.21	\$699,176.80

DR.

January 7, 1895. To Balance,	\$41,589.21
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APPROPRIATIONS, GENERAL, 1893.

DR.

January 1, 1894.	To Balance,		\$35,232.69
		<hr/>	<hr/>

CR.

By cash receipts, as per Treasurer's report,	\$14,486.56	
January 7, 1895. Balance,	20,746.13	\$35,232.69
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DR.

January 7, 1895.	To balance,	\$20,746.13
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APPROPRIATIONS, GENERAL, 1892.

DR.

January 1, 1892.	To balance,	\$12,989.45
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CR.

By cash receipts, as per Treasurer's report,	\$4,241.96	
January 7, 1895. Balance,	8,747.49	\$12,989.45
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DR.

January 7, 1895.	To balance,	\$8,747.49
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APPROPRIATIONS, GENERAL, 1891.

DR.

January 1, 1894.	To balance,		\$5,685.38
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CR.

By cash receipts, as per Treasurer's report,	\$87.57	
January 7, 1895. Balance,	5,597.81	\$5,685.38
	<hr/>	<hr/>

DR.

January 7, 1895.	To balance,	\$5,597.81
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APPROPRIATIONS, GENERAL, 1890.

DR.

January 1, 1894.	To balance,	\$16,142.67
	<hr/>	<hr/>

CR.

By cash receipts, as per Treasurer's report,	\$5.00	
January 7, 1895. Balance,	16,137.67	\$16,142.67
	<hr/>	<hr/>

DR.

January 7, 1895.	To balance,	\$16,137.67
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APPROPRIATIONS, GENERAL, 1889.

DR.

January 1, 1894. To balance,		\$13,713.87
	<hr/>	<hr/>

CR.

By cash receipts, as per Treasurer's report,	\$737.70	
January 7, 1895. Balance,	12,974.17	\$13,713.87
	<hr/>	<hr/>

DR.

January 7, 1895. To balance,		\$12,974.17
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APPROPRIATIONS, GENERAL, 1888.

DR.

January 1, 1894. To balance,		\$2,347.78
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CR.

By cash receipts, as per Treasurer's report,		\$2,347.78
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APPROPRIATIONS, SPECIAL. 1894.

Dr.

Board of Health,	\$4,500.00	
Cemeteries,	150.00	
Engineering department,	1,900.00	
Fire department,	17,500.00	
Engine No. 8 (new),	3,510.00	
Highways and streets,	30,000.00	
Incidentals,	853.00	
Lighting the streets,	10,000.00	
New Bedford and Fairhaven bridge,	1,500.00	
New Bedford Water Works, further supply,	1,200,000.00	
Police department,	12,500.00	
Poor department,	11,500.00	
Public schools, incidentals,	14,100.00	
“ “ pay of teachers,	29,000.00	
“ “ repairs of buildings,	700.00	
“ “ fuel,	2,100.00	
Repairs of city property,	5,700.00	
Acushnet avenue schoolhouse addition,	2,895.60	
Central police station,	2,700.00	
Engine house, Acushnet ave. and Davis st.,	1,231.12	
Schoolhouse lot, Clark street,	6,000.00	
Schoolhouse, Fourth and Madison streets,	7,639.57	
Sewer, Acushnet avenue, lowering of,	550.00	
Acushnet avenue, No. 10,	600.00	
Beetle street, No. 2,	2,000.00	
Belleville avenue, No. 4,	1,000.00	
Belleville avenue, No. 5,	200.00	
Bonney street,	25,000.00	
Chancery street,	150.00	
Clark street, No. 3,	2,000.00	
Copper street,	2,000.00	
Elm street,	350.00	
Front and Commercial streets,	1,996.00	
Maple street, No. 2,	2,000.00	
Mitchell street,	1,200.00	
Purchase street, No. 10.	1,575.00	
Washburn street,	1,500.00	\$1,408,100.29

CR.

By cash receipts, as per Treasurer's report,	\$200,000.00	
Transfer from unappropriated funds,	87,892.02	
January 7, 1895. Balance,	1,120,208.27	\$1,408,100.29

DR.

January 7, 1895. To balance,	\$1,120,208.27
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APPROPRIATIONS, SPECIAL LOAN, 1894.

CR.

January 7, 1895. By balance,	\$75,000.00
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APPROPRIATIONS, SPECIAL, 1893.

DR.

January 4, 1894. To balance,	\$178,099.91
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CR.

By appropriations general, 1894,	\$56,171.80	
Cash receipts, as per Treasurer's report,	121,000.00	
Transfer to balance,	928.11	\$178,099.91

BOARD OF HEALTH.

DR.

Collecting garbage:

Edgar H. Gammons,	\$12,000.00
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Incidentals:

Isaac L. Ashley,	\$24.00	
Dr. D. C. Ashley,	18.50	
F. S. Brightman,	8.25	
Ballard & Kirschbaum,	1.00	
Manuel Brown,	49.00	
Anna M. Croacher, M. D.,	45.00	
DeWolf & Vincent,	1.10	
F. M. Douglass,	7.20	
Edgar H. Gammons,	104.50	
W. A. Greenough & Co.,	2.00	
Nath. Hathaway,	136.20	
H. S. Hutchinson & Co.,	25.50	
D. J. Kane & Bro.,	3.85	
Kirby & Hicks,	2.50	
C. H. & H. A. Lawton,	63.70	
William E. Macomber,	100.00	
Mercury Publishing Co.,	6.00	
N. B. Gas and Edison Light Co.,	8.52	
N. B. Towboat Co.,	50.00	
Dr. Chas. A. Pratt,	165.00	
Samuel W. Peckham,	7.00	
Louis H. Richardson,	60.00	
Dr. William N. Swift,	128.36	
So. Mass. Telephone Co.,	35.00	
Robert W. Taber,	42.04	
H. J. Taylor & Son,	1.25	
Tug Volunteer,	70.00	
E. T. Wilson,	5.00	1,170.47

Printing and advertising:

E. Anthony & Sons, Inc.,	12.22	
Evening Journal Co.,	91.57	
Mercury Publishing Co.,	10.87	114.66

Rent:

Bates & Kirby,	500.00
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Salaries :

William E. Macomber, Health Officer,	1,020.25	
Louis H. Richardson, Inspector,	1,422.39	
Susie J. Small,	508.04	2,950.68
		<u>\$16,735.81</u>
Transfer to balance,		694.19
		<u>\$17,430.00</u>

CR.

By appropriation,	\$12,920.00	
Appropriation, special,	4,500.00	
Cash receipts, as per Treasurer's report,	10.00	\$17,430.00

CEMETERIES.

DR.

Pay rolls :

Oak Grove cemetery,	\$3,039.24	
Pine Grove cemetery,	50.83	
Rural cemetery,	3,301.72	\$6,391.79

Salaries :

James C. Briggs,	Cemetery Board,	15.49	
Luther G. Hewins,	" "	103.90	
Pardon A. Macomber,	" "	192.42	
J. Arthur Taylor,	" "	103.90	
Edward S. Haskell,	Superintendent,	231.15	
Charles F. Cornell,	Sexton,	1,016.67	
Sam'l F. Waterson,	"	1,016.67	2,680.20

Sundries :

F. T. Akin & Co.,	68.02
Samuel Alger,	3.75
E. Anthony & Sons, Inc.,	13.52
Isaac L. Ashley,	7.00
Bates & Kirby,	186.00
John Bertram,	102.85
Briggs & Lawrence,	1.48

Charles O. Brightman,	13.84
F. S. Brightman,	15.01
William S. Brown,	144.17
Central Union Association,	2.10
Charles W. Coggeshall,	6.24
Charles F. Cornell,	19.20
Z. B. Davis,	183.48
Denison Bros. Co.,	14.54
DeWolf & Vincent,	38.06
Edwin Dews,	14.45
P. F. Drew,	1.50
John Dunn,	13.50
Evening Journal Co.,	52.31
David Ferguson,	6.40
Frost & Adams,	10.00
Edgar H. Gammons,	2.00
Charles A. Gray,	.50
Greene & Wood,	1.47
W. A. Greenough & Co.,	2.00
Thomas M. Hart & Co.,	40.60
A. B. Hathaway,	1.80
N. P. Hayes,	56.87
Thos. Hersom & Co.,	7.50
E. O. Higgins,	.30
Highways and streets,	4.49
Hillman, Washburn & Co.,	7.75
Albert W. Holmes,	6.60
D. W. Holmes,	32.77
H. S. Hutchinson & Co.,	57.21
E. Jackson,	4.00
Jahn Bros.,	4.20
P. P. Jenney & Son,	9.70
Herman Karcher,	1.84
J. Frank Kirk,	14.78
C. H. & H. A. Lawton,	.80
R. S. Lawton,	7.20
Library Bureau,	83.55
S. C. Lowe,	1.20
Pardon A. Macomber,	348.61
John W. Manchester,	12.00
William Maxfield & Son,	.98
T. McCrohan,	64.40
Mercury Publishing Co.,	96.40
E. D. Mosher,	17.50
New Bedford Cordage Co.,	1.90

New York, New Haven & Hartford R. R. Co.,	.36	
Mrs. Charles R. Neagus,	16.51	
S. S. Paine & Bro.,	14.80	
Charles S. Paisler,	34.38	
F. H. Pasel,	2.52	
Charles E. Peirce,	3.20	
William Peirce,	187.35	
E. F. Penney,	2.10	
Perkins & Chase,	6.50	
George W. Perry,	23.58	
E. H. Pierce,	41.69	
Purrington, Brown & Richards,	17.00	
W. F. Schultz,	11.00	
Mortimer Searles,	4.89	
C. R. Sherman & Son,	1.50	
Andrew J. Skiff,	2.60	
F. R. Slocum,	.50	
So. Mass. Telephone Co.,	112.50	
Andrew R. Springer,	18.23	
F. A. Sterry,	13.21	
William F. Sturtevant,	22.61	
Antonio A. Sylvia,	.56	
Sylvia & Alexander,	69.25	
Robert W. Taber,	4.75	
J. Arthur Taylor,	21.93	
Peleg A. Tripp,	102.90	
Union Street Railway Co.,	4.25	
John Whiteside,	5.31	
E. T. Wilson,	16.00	
Wood, Brightman & Co.,	20.45	2,590.77
		<u>\$11,662.76</u>

CR.

By appropriation,	\$5,320.00	
Appropriation, special,	150.00	
Transfer from unappropriated funds,	5,700.00	
Transfer to balance,	492.76	\$11,662.76

CEMETERIES, SALE OF LOTS.

DR.

Pay rolls :

Oak Grove cemetery,	\$1,096.77	
Pine Grove cemetery,	473.78	
Rural cemetery,	745.57	\$2,316.12

Sundries :

Acushnet Sawmill Co.,	6.30	
C. H. W. Butts,	169.75	
Geo. A. Cobb,	20.26	
Eugene G. Crapo,	96.95	
George G. Crapo & Son,	40.60	
Mary W. Davis,	34.74	
Denison Bros. Co.,	27.80	
Samuel L. Doran,	12.50	
David Ferguson,	257.75	
Charles A. Gray,	1.75	
B. Gudrow,	29.40	
Hillman, Washburn & Co.,	6.96	
Jenney & Buflington,	12.95	
Leonard Keene, Jr.,	49.00	
R. S. Lawton,	7.25	
John W. Manchester,	11.00	
E. D. Mosher,	26.97	
S. S. Paine & Bro.,	26.17	
I. H. Peckham,	3 83	
Perkins & Chase,	3.00	
Eli W. Reed,	31.60	
David W. Sherman, Jr.,	28.13	
Andrew R. Springer,	8.84	
Thomas St. Germain,	8.00	
F. A. Sterry,	18.14	
Sylvia & Alexander,	63.75	
R. H. Woodhouse,	1.28	1,004.67

\$3,320.79

January 8, 1895. To balance,

1,279.21\$4,600.00

CR.

January 1, 1894. By balance,	\$555.00	
By cash receipts, as per Treasurer's report,	4,045.00	\$4,600.00
	<hr/>	<hr/>

CR.

January 7, 1895. By balance,		\$1,279.21
	<hr/>	<hr/>

CEMETERY FUNDS.

CR.

January 1, 1894. By balance,	\$24,094.93	
By cash receipts, as per Treasurer's report,	1,840.00	\$25,934.93
	<hr/>	<hr/>

COMMONWEALTH OF MASSACHUSETTS.

CHAPTER 279.

DR.

January 1, 1894. To balance,	\$1,290.47	
Amount paid by city for soldiers' aid,	2,858.50	\$4,148.97
	<hr/>	<hr/>

CR.

By appropriation,	\$1,200.00	
Cash receipts, as per Treasurer's report,	1,662.00	
January 7, 1895. To balance,	1,286.97	\$4,148.97
	<hr/>	<hr/>

DR.

January 7, 1895. To balance,		\$1,286.97
	<hr/>	<hr/>

COMMONWEALTH OF MASSACHUSETTS.

CHAPTER 301.

DR.

January 1, 1894. To balance,	\$8,332.30	
Amount paid city for State aid,	9,484.30	\$17,816.60
	<hr/>	<hr/>

CR.

By cash receipts, as per Treasurer's report,	\$8,784.17	
January 8, 1895. Balance,	9,032.43	\$17,816.60
	<hr/>	<hr/>

DR.

January 7, 1895. To balance,		\$9,032.43
	<hr/>	<hr/>

COMMONWEALTH OF MASSACHUSETTS.

CHAPTER 395 OF 1889.

DR.

1894. To amount paid by city for burials,		\$210.00
	<hr/>	<hr/>

COMMONWEALTH OF MASSACHUSETTS.

CHAPTER 447 OF 1890.

DR.

To amount paid by city for soldier's relief,	\$3,656.17
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CR.

By appropriation,	\$2,400.00	
Cash receipts, as per Treasurer's report,	10.00	
Balance,	1,246.17	\$3,656.17

DR.

January 7, 1895. To balance,	\$1,246.17
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COURT JUDGMENTS.

DR.

William W. Crapo, et al.,	\$437.65	
David Dunoines, et al.,	76.76	
William P. Dexter,	20.00	
Melina Harbeck,	20.00	
F. A. Milliken, et. al.,	666.93	
Lucy A. Sykes,	250.00	\$1,471.34

CR.

By transfer to balance,	\$1,471.34
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ELECTION FUND.

DR.

Precinct officers,		\$1,295.00
Printing and advertising :		
E. Anthony & Sons, Inc.,	\$320.26	
Catholic Union Publishing Co.,	160.86	
Evening Journal Co.,	989.29	
Mercury Publishing Co.,	298.89	1,769.30
Rents :		
Bates & Kirby,	5.00	
Maurice Downey,	20.00	
George E. Saxon,	50.00	
Spruce street church,	40.00	115.00
Hack hire :		
Isaac L. Ashley,	6.00	
William E. Buckley,	6.00	
Charles R. Cornell,	3.00	
P. H. King,	6.00	
Kirby & Hicks,	16.00	
E. G. Reynolds,	6.00	
William D. Richards,	6.00	
William H. Sherman,	6.00	
Allen Smith, Jr.,	6.00	
T. S. Swift,	6.00	
David Warren,	6.00	73.00
Incidentals :		
James T. Almy,	3.00	
Briggs & Lawrence,	7.38	
F. S. Brightman,	13.22	
Albion T. Brownell,	27.50	
George G. Cassidy,	8.00	
William F. Caswell,	10.00	
Coffin Bros.,	39.00	
Herbert B. Gardner,	10.00	
John A. Gomley,	49.75	
B. F. Hathaway, Jr.,	10.00	
N. P. Hayes,	2.05	
Albert W. Holmes,	4.80	
Alonzo V. Jason,	10.00	
Isaac M. Jones,	4.00	
Edwin B. Jourdain,	10.00	
George F. Maxfield,	5.17	

N. B. Gas and Edison Light Co.,	4.14	
John Notter,	2.20	
Samuel W. Peekham,	3.00	
E. F. Penney,	9.50	
A. D. Piper,	9.00	
D. M. Piper,	2.00	
J. Arthur Piper,	15.00	
Abner P. Pope,	112.71	
Purrington, Brown & Richards,	1.04	
Richardson's Detective agency,	77.10	
Mortimer Searles,	8.25	
Martin H. Sullivan,	53.18	
Robert W. Taber,	13.57	
Wood, Brightman & Co.,	1.25	525.81
		<u>\$3,778.11</u>

CR.

By transfer from unappropriated funds,	\$3,000.00	
Transfer to balance,	778.11	\$3,778.11

ENGINEERING DEPARTMENT.

DR.

Wm. F. Williams, City Land Surveyor,	\$2,196.06
Pay rolls,	2,616.80
F. T. Akin & Co.,	3.59
C. O. Brightman,	8.99
F. S. Brightman,	12.80
W. D. Blanchard,	6.00
T. S. Buck,	1.60
Church & Hammond,	2.67
Edwin Dews,	20.93
DeWolf & Vincent,	.95
R. N. B. Doane,	1.40
Evening Journal Co.,	37.06
Frost & Bdams,	51.88
Greene & Wood,	2.75

Hatch & Co.,	2.50	
N. P. Hayes,	2.07	
Highways and streets,	381.98	
H. S. Hutchinson & Co.,	18.88	
Hillman, Washburn & Co.,	1.10	
P. P. Jenney & Son,	11.27	
William L. Kelley,	1.00	
Keuffel & Esser Co.	10.65	
Joseph H. Lawrence,	1.50	
Library Bureau,	24.43	
Mercurey Publishing Co.,	2.50	
James E. Moody,	13.85	
N. B. Gas and Edison Light Co.,	19.20	
N. B. Water Works,	6.24	
Odd Fellows Building Association,	350.00	
S. F. Perry & Son,	1.00	
Purrington, Brown & Richards,	.35	
Mortimer Searles,	1.05	
Shedd & Sarle,	1.20	
C. R. Sherman & Son,	6.25	
So. Mass. Telephone Co.,	52.50	
F. L. Sowle & Co.,	.20	
Standard Gauge Co.,	5.50	
Taber Art Co.,	2.00	
Robert W. Taber,	4.78	
Union Street Railway Co.,	175.00	
W. F. Williams,	22.55	
Charles F. Wing,	.75	
George E. Winslow,	169.40	\$6,253.18
January 7, 1895. To balance,		528.10
		<u>\$6,781.28</u>

CR.

By appropriation,	\$3,800.00	
Appropriation, special,	1,900.00	
Transfer from unappropriated funds,	1,081.28	\$6,781.28

CR.

January 7, 1895. By balance,		<u>\$528.10</u>
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FIRE DEPARTMENT.

Dr.

Pay rolls :

Frederick Macy, chief engineer,	\$1,000.00	
Loring T. Parlow, 1st assistant engineer,	300.00	
James J. Donaghy, 2d " "	250.00	
Samuel C. France, 2d " "	250.00	
George M. Crapo, 4th " "	250.00	
Luther G. Hewins, Jr., clerk,	200.00	2,250.00

Protecting Society,

150.00

Engine companies :

Permanent men,	26,455.90	
Engine Co. No. 1,	1,393.74	
" No. 2,	1,393.74	
" No. 4,	1,393.49	
" No. 5,	1,393.74	
" No. 6,	1,393.74	
" No. 7,	1,393.74	
" No. 9,	575.00	

Hook and Ladder Co. No. 1,

1,426.75

" No. 2,

1,272.50

" No. 3,

1,272.50

Hose Co., No. 1

742.50

" No. 2,

742.50

40,849.84

Repairs of engines, harness, etc. :

Acushnet Iron Co.,	33.08	
Jesse Allen,	23.11	
George L. Brownell,	94.96	
Brownell, Ashley & Co.,	345.48	
William Uronin,	108.07	
Charles F. Cushing,	199.58	
Thomas Donaghy,	3.95	
Gardner & Southwick,	49.94	
H. C. Hathaway,	255.30	
L. J. Hathaway,	100.20	
T. F. Healy,	61.53	
G. G. Huddy,	11.05	
Alonzo V. Jason,	150.00	
J. I. Jennings,	2.50	
John R. Linton & Sons,	12.52	
Pope's Island Mfg. Co.,	52.87	
F. H. Sargent,	30.60	1,534.74

Repairs of engine houses :

F. T. Akin & Co.,	67.70	
R. N. Allen & Son,	1.90	
Jason L. Ballou,	389.32	
C. O. Brightman,	121.27	
Charles A. Crosher,	36.58	
Thos. J. Gifford & Co.,	4.60	
Marshall S. Greene,	243.91	
F. W. Hammond,	4.45	
Hart & Akin,	6.95	
M. A. Hickey,	49.71	
Kern & Wright,	.75	
S. C. Lowe,	364.37	
T. E. Mahoney,	2.50	
J. J. Moriarty,	1.95	
D. E. Nelson,	1.89	
N. B. Boiler and Machine Co.,	102.89	
C. S. Paisler,	1.35	
John F. Parker,	2.00	
E. F. Penney,	.35	
Martin H. Sullivan,	33.68	
William H. Washburn,	34.53	
William R. West,	17.84	
S. B. Wilbur,	160.06	
D. W. Wilson,	8.97	
Wood, Brightman & Co.,	.25	1,659.77

Hay, grain and fuel :

Seth Alden,	77.04	
William Baylies,	458.51	
Edward Begley,	5.00	
George H. Brayton,	272.90	
Joseph T. Brownell,	110.32	
T. S. Corson,	261.46	
Denison Bros. Co.,	482.77	
J. O. Douglass,	16.66	
David Duff & Son,	41.78	
W. A. Gurney,	4.83	
P. S. Hathaway,	21.53	
A. W. Holmes,	744.51	
Jacob Howland,	120.65	
Charles L. Kelley,	663.95	
J. Frank Kirk,	360.09	
Henry Lenhart,	24.59	
F. P. Morton,	9.60	
John Notter,	173.29	

Poor department,	897.35	
D. H. Potter,	153.97	
John A. Russell,	5.12	
I. M. Smith,	15.34	
Frank Tinkham,	227.00	
John M. Tinkham,	15.94	5,164.20

Horse hire :

Jos. E. Alexander,	169.00	
Isaac L. Ashley,	34.00	
J. V. Bancroft,	236.84	
Wm. E. Bradley,	10.00	
David Duff & Son,	45.00	
Fred. Hutchins,	4.00	
Chas. L. Kelley,	26.25	
Henry W. Kenyon,	16.00	
Kirby & Hicks,	3.00	
Isaac H. Manchester,	130.50	
Edward M. Peirce,	.50	
S. F. Perry & Son,	.75	
E. G. Reynolds,	15.50	
Timothy Sheehan,	111.00	
Allen Smith, Jr.,	1.50	
Jos. L. Sylvia,	13.50	
Sylvia & Mitchell,	17.00	
John Whalen,	46.00	
David Warren,	107.00	987.34

Labor :

Charles Allen,	9.00
J. W. Baker,	3.25
J. W. Barlow,	1.25
D. D. Briggs,	40.46
S. J. Cassidy,	5.14
James Fox,	42.00
Geo. H. Gifford,	4.00
Oscar F. Hammond,	14.00
W. H. Harlow,	1.63
Highways and streets,	24.64
David W. Howland,	1.63
C. P. Johnson,	2.00
John P. Kennedy,	2.50
A. G. Mitchell,	1.25
Edward W. O'Neil,	13.25
John O'Neil,	3.00
Wm. P. Reed,	20.00

Wm. R. Russell,	2.00	
Edward F. Tripp,	48.00	
W. H. Young,	2.25	240.25

Supplies :

American Supply Co.,	1.65
American Tube Works,	40.87
Beattie Zinc Works,	78.00
J. A. & W. Bird & Co.,	62.86
Blake Bell Co.,	14.50
Bliss & Nye,	4.75
Cornelius Callahan Co.,	1,542.15
H. E. Chadwick,	24.00
C. S. & B. Cummings,	2.10
Dr. A. C. Daniels,	8.00
DeWolf & Vincent,	93.87
T. A. Dexter,	3.72
R. E. Dietz,	13.00
Driscoll, Church & Hall,	95.55
Jona. Handy,	4.81
N. P. Hayes,	16.14
James B. Hazzard,	.50
Thos. Hersom,	10.00
Hillman, Washburn & Co.,	6.45
Geo. S. Homer,	12.00
F. C. Jennings,	10.35
Municipal Fire & Police Telegraph Co.,	233.87
N. B. Cordage Co.,	42.25
N. B. Copper Co.,	3.50
Pairpoint Manuf'g Co.,	6.75
C. N. Perkins,	18.00
L. N. Perry,	2.50
E. H. Pierce,	18.70
Purrington, Brown & Richards,	43.11
C. R. Sherman & Son,	5.82
So. Mass. Tel. Co.,	52.06
F. L. Sowle & Co.,	10.27
R. H. Taber,	12.25
H. J. Taylor & Son,	71.15
H. H. Tilton & Co.,	5.00
S. A. Tripp,	81.59
Underhay Oil Co.,	6.00
J. A. Wade,	5.00
Wamsutta Mills,	15.00
Washburn & Moen Mfg. Co.,	146.28
Western Electric Co.,	36.25

E. B. Whiting & Co.,	92.38	
John S. Williams,	51.50	3,004.40
Blacksmithing:		
F. A. Bonneau,	8.45	
N. H. Caswell,	59.00	
E. M. Durfee,	170.69	
Fichtenmeyer & Flynn,	720.31	
John W. Footman,	74.90	
A. E. Hathaway,	107.40	
E. B. Macy,	203.79	
H. C. Stanbridge,	20.25	1,364.79
Miscellaneous:		
Almy & Hitch,	3.25	
E. Anthony & Sons, Inc.,	42.00	
John B. Baylies,	30.55	
Briggs & Lawrence,	254.27	
F. S. Brightman,	16.37	
Est. Jos. Brownell,	60.00	
Fred C. Church,	400.00	
George A. Cobb,	16.92	
Pardon Cornell,	300.00	
William H. Denham,	11.40	
F. E. Delano,	5.66	
Edwin Dews,	28.80	
A. A. Dunlap,	53.00	
Evening Journal Co.,	53.84	
Edgar H. Gammons,	7.00	
Charles A. Gray,	22.81	
Greene & Wood,	151.76	
T. M. Hart & Co.,	41.61	
Hatch & Co.,	14.15	
Hayes Hose Elevator Co.,	100.87	
A. E. Hathaway,	151.30	
H. S. Hutchinson & Co.,	2.50	
D. J. Kane & Bro.,	2.25	
William L. Kelley,	6.50	
Frederick Macy,	487.59	
H. M. Maine,	6.76	
Mercury Publishing Co.,	8.75	
C. H. Mosher,	14.70	
N. B. Gas and Edison Light Co.,	865.85	
N. B. Ice Co.,	43.30	
N. Y., N. H. & H. R. R. Co.,	10.80	
N. B. Water Works,	16.52	
Dr. L. Z. Normandin,	1.75	

F. R. Pease,	1.25	
C. G. & G. A. Randall,	5.12	
Pardon Russell,	18.00	
J. H. Shay, Jr.,	45.00	
F. R. Slocum,	145.00	
So. Mass. Telephone Co.,	415.00	
John Sylvia,	.70	
Robert W. Taber,	2.00	
George Thomas,	14.70	
B. H. Waite & Co.,	192.02	
James B. Watkins,	26.75	
Welch & Hall,	250.00	
J. A. Wilbur,	2.00	
C. F. Wing,	63.65	4,414.02
		<u>\$61,619.35</u>

Cr.

By appropriation,	\$38,000.00	
Special appropriation,	17,500.00	
Transfer from unappropriated funds,	825.00	
Cash receipts, as per Treasurer's report,	795.00	
Transfer to balance,	4,499.35	\$61,619.35

FIRE DEPARTMENT—ENGINE NO. 5.

Dr.

La France Engine Co.	<u>\$3,500.00</u>
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Cr.

January 1, 1894. By balance,	<u>\$3,500.00</u>
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FIRE DEPARTMENT—ENGINE NO. 8.

DR.

La France Engine Co.,	\$3,500.00	
To transfer to balance,	10.00	\$3,510.00

CR.

By special appropriation,		\$3,510.00
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FREE PUBLIC LIBRARY.

DR.

Salaries :

R. C. Ingraham, librarian,	\$2,250.00	
W L. R. Gifford, assistant librarian,	1,500.00	
Mary E. Brown, assistant,	540.00	
Susie H. Gammons,	540.00	
Josephine A. Merrick,	540.00	
Y. W. Ames, janitor,	600.00	\$5,970.00

CR.

By appropriation,		\$5,970.00
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FREE PUBLIC LIBRARY—SUBJECT CATALOGUE.

DR.

Clara C. Russell,	\$480.00	
January 7, 1895. To balance,	96.33	\$576.33

CR.

January 1, 1894. By balance,		\$576.33
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CR.

January 7, 1895. By balance,		\$96.33
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FREE PUBLIC LIBRARY—DOG FUND.

DR.

Almy & Milne,	\$6.00
Y. W. Ames,	86.00
E. Anthony & Sons, Inc.,	104.84
George L. Briggs,	50.10
Briggs & Lawrence,	28.50
F. S. Brightman,	10.29
S. S. Broadbent,	28.00
Commercial Advertiser,	6.00
Daily Gazette, Taunton,	6.00
Anna M. DeWolf,	134.00
Edwin Dews,	9.50
L. B. Ellis,	7.70
Evening Journal Co.,	74.12
Florence E. Farwell,	157.75
F. B. & F. P. Goss,	2.00
H. S. Hutchinson & Co.,	44.55
Inter-Ocean, Chicago,	6.00

Library Bureau,	108.61	
D. J. McAuliffe,	42.00	
Emma J. Merrick,	193.50	
Mercury Publishing Co.,	15.89	
News and Courier, Charleston, S. C.,	10.00	
New York Herald,	8.00	
New York Times,	14.60	
Nicholson & Co.,	12.00	
A. P. Pope,	10.63	
Providence Journal Co.,	8.00	
San Francisco Chronicle,	13.40	
R. A. Sherman & Son,	29.00	
Tribune Association,	7.35	
C. L. Yaeger,	103.00	\$1,337.33
January 7, 1895. To balance,		.26
		<u>\$1,337.59</u>

CR.

By cash receipts, as per Treasurer's report,	<u>\$1,337.59</u>
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CR.

January 7, 1895. By balance,	<u>\$0.26</u>
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FREE PUBLIC LIBRARY—TRUSTEES OF.

(INCOME DERIVED FROM TRUST FUNDS.)

DR.

Books, periodicals, newspapers, etc.:

Academy of National Science of Philadelphia,	\$5.00
Allyn & Bacon,	1.62
American Academy of Political and Social Science,	27.00

American Antiquarian Society,	5.00
American Journal of Philology,	3.00
E. Anthony & Sons, Inc.,	17.50
D. Appleton & Co.,	130.00
J. O. Austin,	10.00
Bancroft-Whitney Co.,	20.00
M. M. Bettencourt,	20.00
George L. Briggs,	2.40
Zenas M. Briggs, Agt.,	2.50
Briggs & Lawrence,	46.50
John H. W. Cadby,	9.85
Cambridge Entomological Club,	5.00
T. H. Castor & Co.,	74.39
City Treasurer,	142.25
Sylva Clapin,	4.00
W. B. Clarke & Co.,	10.00
Sam'l H. Cook & Co.,	187.50
Dedham Historical Register,	2.00
Edwin Dews,	8.90
Egypt Exploration Fund,	10.00
George H. Ellis,	2.00
Essex Institute,	4.50
Evening Journal Co.,	9.00
L. S. Foster,	3.00
David G. Francis,	5.53
H. A. Gifford, Jr.,	9.00
Lawrence Grinnell & Co.,	187.50
William H. Guild & Co.,	486.60
Francis P. Harper,	2.25
Harvard Graduates Magazine,	1.00
Harvard Monthly,	2.00
A. Clifford Hawes,	2.00
Houghton, Mifflin & Co.,	28.50
H. S. Hutchinson & Co.,	846.31
Johns Hopkins Press,	7.50
Little, Brown & Co.,	372.06
Geo. E. Littlefield,	117.25
Howard Lockwood & Co.,	12.00
W. H. Lowdermilk & Co.,	5.00
J. W. Mason & Co.,	30.00
Massachusetts Historical Society,	6.00
Henry C. McCook,	5.00
Jos. McDonough,	5.00
Francis J. Meeker,	5.18
Mercury Publishing Co.,	12.00

Samuel E. Miller,	5.00	
Joel Munsell's Sons,	9.00	
E. W. Nash,	8.55	
N. E. Magazine,	3.00	
N. H. Colony Historical Society,	5.00	
P. O'Shea,	3.75	
Pedagogical Seminary,	14.00	
Stephen D. Peet,	8.00	
George R. Phillips,	3.00	
H. V. & H. W. Poor,	7.50	
Publishers' Weekly,	7.20	
L. H. Richards,	15.00	
Sidney S. Rider, Agt.,	10.50	
S. Raymond Roberts Trs.,	20.00	
Sampson, Murdock & Co.,	24.50	
Carl Schoenhof,	125.79	
Schulte Pub. Co.,	6.00	
Social Economist,	1.50	
John Skinner,	2.22	
Soldiers and Sailors Historical Society of Rhode Island,	4.00	
C. A. G. Swasey,	15.00	
Taber Art Co.,	10.00	
Robert W. Taber,	683.97	
Thomas J. Taylor,	4.50	
Ticknor & Co.,	5.00	
Tribune Association,	9.15	
U. S. Patent Office,	31.20	
University of Pennsylvania Press,	2.00	
C. D. Waldron,	1.00	
Edgar A. Werner,	11.00	\$3,966.92
January 7, 1895. To balance,		3,293.02
		<u>\$7,259.94</u>

Cr.

January 1, 1894. By balance,	\$3,533.94	
By cash receipts, as per Treasurer's report,	3,726.00	\$7,259.94

Cr.

January 7, 1895. By balance,	\$3,293.02
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HIGHWAYS AND STREETS.

DR.

Pay rolls,		\$75,947.71
Teaming :		
A. M. Bigelow,	\$91.50	
Elihu Bunker,	60.35	
Brownell, Ashley & Co.,	.32	
A. L. Couet,	.75	
William Cronin,	492.12	
Charles F. Cushing,	314.20	
Fichtenmeyer & Flynn,	.58	
Andrew E. Hathaway,	25.95	
W. M. Magoon,	82.75	
W. D. Sherman,	2.00	
H. C. Stanbridge,	6.00	
E. C. Taber,	.45	
Dr. H. B. Wells,	72.00	1,148.97
Hay and Grain :		
William Baylies,	1,930.65	
E. Blossom,	89.25	
F. H. Cornell,	318.00	
Denison Bros. Co.,	4,613.14	
James Dohl,	33.52	
H. C. Hathaway,	185.89	
Joseph Lawrence,	91.34	
S. C. Mendall,	51.48	
I. B. Poole,	79.46	
W. P. Wilson,	50.06	7,442.79
Repairs of boilers, crushers, etc. :		
Abbott-Downing Co.,	5.00	
Acushnet Iron Co.,	24.25	
American Road Machine Co.,	41.30	
Babbitt, Wood & Co.,	89.72	
Bowker & Tripp,	481.74	
George L. Brownell,	87.30	
Brownell, Ashley & Co.,	17.75	
Farrell Foundry and Machine Co.,	454.42	
O. S. Kelly Co.,	16.00	
S. C. Lowe,	2.63	
F. W. Luscomb Machine Co.,	7.99	
N. B. Boiler and Machine Co.,	136.68	
N. B. Brass Foundry,	34.80	

Sewers, general,	4.43	
Smith-Carleton Iron Co.,	12.25	
Taylor Iron and Steel Co.,	96.90	
Wood, Brightman & Co.,	3.42	1,516.58
Supplies and material :		
A. W. Allen,	27.41	
Clark Allen,	4.94	
Henry C. Allen,	30.81	
Jos. E. Alexander,	22.33	
Charles M. Andrews,	88.19	
H. T. Ashley,	6.81	
Beetle & Jenney,	2.11	
Edward Begley,	4.00	
John Bertram,	25.32	
Jeremiah Bono,	97.43	
Joseph Bono,	14.38	
Regis Bono,	2.82	
L. F. Bouchard,	39.26	
John W. Briggs,	2.30	
Brightman Bros.,	58.40	
William H. Brightman,	85.45	
William P. Brightman,	3.39	
Charles T. Brownell,	6.35	
E. C. Brownell,	.75	
S. A. Brownell,	23.09	
George L. Brownell,	11.10	
John M. Burgess,	40.39	
James Burke,	48.11	
James Burns,	81.92	
C. H. W. Butts,	.75	
Edward H. Casey,	18.20	
Denois Charry,	4.06	
George A. Cobb,	2.36	
William P. Coggeshall,	42.06	
John Connell,	55.50	
John Conners,	151.52	
Patrick Conners,	86.12	
D. H. Cook,	4.36	
James Cook,	1.62	
J. H. Cornell,	6.73	
T. S. Corson,	341.84	
George G. Cory,	46.57	
I. C. Cory,	6.16	
Eugene G. Crapo,	236.13	
Peter Crapo,	631.17	

Manuel E. Curtis,	1.32
George Delano's Sons,	70.17
Fred Denneault,	206.68
Moses Dennault,	52.28
DeWolf & Vincent,	18.97
William Doran,	1,408.73
Driscoll, Church & Hall,	32.98
John W. Drew,	1.72
David Duff & Son,	740.63
John Dunn,	3.76
George Eggers,	16.04
A. F. Enos,	88.53
Manuel Enos,	15.62
Daniel Flansbury,	99.32
Stephen Flansbury,	51.76
J. T. Francis,	329.96
Gardner & Southwick,	2.50
H. M. Gibson,	8.48
L. R. Gifford,	.82
Dollie Goodrow,	12.90
Peter Gregoire,	61.41
Greene & Wood,	59.79
Hicks Grenier,	63.37
David Grew, Jr.	7.10
Jona. Handy,	350.22
Frank Haskell,	116.58
A. E. Hathaway,	14.20
H. V. Hathaway,	22.05
Henry W. Hathaway,	73.48
John W. Hathaway,	6.14
L. J. Hathaway,	135.63
Paul S. Hathaway,	111.77
S. T. Hawes,	42.02
N. P. Hayes,	385.09
Hillman, Washburn & Co.,	13.98
Roland Holcomb,	3.50
Albert W. Holmes,	130.97
George S. Homer,	34.32
William Howard,	78.25
Jos. Jacent,	7.76
Jos. Jacinth,	1.63
John Jacintho,	9.20
Jos. Jason,	95.47
And. F. Jenks,	16.75
B. S. Jenkins,	45.91

P. P. Jenney & Son,	20.00
Jenney & Buffington,	58.20
Fred Jones,	8.70
Joseph P. Kennedy,	18.10
Howard King,	2.49
Robert B. King,	108.38
George Kirby, Jr., & Co.,	5.48
Russell S. Lawton,	19.31
S. C. Lowe,	120.10
James F. Mack,	57.39
John W. Manchester,	74.81
M. McCarthy,	587.53
Timothy McCrohan,	33.05
John McCullough,	29.40
Mrs. N. F. Mendall,	.50
Benj. Negus,	72.66
W. A. Negus,	8.67
N. B. Cordage Co.,	23.02
N. B. Gas and Edison Light Co.,	918.00
N. B. Street Transportation Co.,	1,939.11
Norcross Bros.,	35.18
George W. Norton,	10.08
William F. Nye,	.55
Patrick O'Connor,	66.13
Patrick O'Leary,	10.83
S. S. Paine & Bro.,	1,183.08
C. S. Paisler,	77.12
Frank Pedro,	29.79
Perkins & Chase,	3,109.12
Joseph Perry,	1.18
Manuel Perry,	8.26
E. H. Pierce,	10.98
George A. Potter,	20.04
Purrrington, Brown & Richards,	35.88
Damase Quintin,	.42
Abiatha Rogers,	126.65
George W. Rogers,	59.25
Arthur Roy,	23.46
Louis Roy,	76.57
Edward T. Russell,	38.81
John A. Russell,	203.83
A. K. P. Sawin,	5.63
Scollay & Rich,	12.25
Sedgwick Co.,	12.50
Sewers, general,	267.40

Timothy Sheehan,	83.19
James L. Sherman,	43.56
E. E. Simmons,	5.36
Theophile Sivigny,	13.08
F. L. Sowle & Co.,	356.86
F. J. Spencer,	161.45
Spencer's Wood Yard,	1.75
E. F. Spooner,	54.00
George H. Spooner & Bro.,	72.47
John A. Spooner,	25.00
J. W. Spooner,	128.83
William B. Spooner,	8.03
Bruno St. Clair,	37.54
D. St. Germain,	13.01
George B. Stafford,	4.10
St. Luke's Hospital,	37.23
Fred A. Stowell,	367.85
D. J. Sullivan,	53.84
John B. Sullivan,	5,410.13
Benj. Sutton,	4.91
E. R. Swain,	65.43
Antone Sylvia,	17.03
J. L. Sylvia,	130.82
Manuel Sylvia,	34.29
Manuel B. Sylvia,	7.80
Manuel D. Sylvia,	11.40
Manuel S. Sylvia,	45.36
Sylvia & Alexander,	49.90
E. & K. C. Terry,	56.04
Augustus C. Tripp,	19.40
E. B. Tripp,	2.48
Peleg Tripp,	30.97
W. H. Tripp,	55.29
Underhay Oil Co.,	53.25
Union Street Railway Co.,	78.21
W. O. T. Upham,	66.23
David F. Wainer,	87.66
Waite, Williams & Co.,	108.72
Wakefield Rattan Co.,	94.00
Alanson Wallace,	19.44
Robert Walton,	8.14
Wamsutta Mills,	25.12
David Warren,	82.19
Lettice R. Washburn,	.45
John Whalon,	15.42

Clifford White,	32.66	
John Whiteside,	2.77	
James T. Wilbur,	153.44	
S. B. Wilbur,	3.52	
S. S. Wilbur,	520.59	
Wood, Brightman & Co.,	1.30	
William Woodhouse,	11.82	25.715.19

Miscellaneous :

F. T. Akin & Co.,	1.35
Edwin Allen,	1.50
Ames Plow Co.,	261.45
American Road Machine Co.,	215.00
E. Anthony & Sons, Inc.,	180.74
Isaac L. Ashley,	1.50
Roland R. Ashley,	10.00
Ashley & Peirce,	4.50
Association of Engineering Societies,	1.80
Ballard & Kirschbaum,	2.00
W. D. Blanchard,	6.00
Charles Borden,	.71
George B. Borden,	11.35
F. S. Brightman,	20.08
George A. Brownell,	7.70
George L. Brownell,	178.00
John T. Bullard, M. D.,	90.00
Central Engine house drain,	1.48
Church & Hammond,	3.30
Charles W. Coggeshall,	47.19
William S. Cook,	.65
C. S. & B. Cummings,	33.20
Cutting, Bardwell & Co.,	152.47
Edwin Dews,	190.09
Thomas D. Dexter,	15.00
S. J. Donaghy,	15.82
A. B. Drake,	707.79
Engineering Record,	.72
Evening Journal Co.,	303.78
Fairbanks Co.,	307.06
W. R. Fleming,	6,640.00
George S. Fox, Agt.,	6.00
Frost & Adams,	19.20
J. N. Gage,	82.59
W. A. Greenough & Co.,	4.00
Grinnell Manufacturing Co.,	11.20
T. M. Hart & Co.,	2.60

Hatch & Co.,	2.95
George E. Hatch,	35.87
H. H. Hathaway,	150.00
M. A. Hickey,	172.15
John Holland,	500.00
Dr. G. de N. Hough,	5.00
Thomas D. Howland,	4.00
E. Howard Watch Co.,	6.00
C. G. Hurlburt,	5.00
H. S. Hutchinson & Co.,	116.85
Nathan G. Jenney,	9.85
P. P. Jenney & Son,	77.05
Kirby & Hicks,	109.65
Library Bureau,	1.50
H. M. Maine,	3.40
S. G. Mandell,	30.00
Masonic Building Association,	513.22
John McCabe,	19.62
L. C. McAfee,	15.24
Merchants National Bank,	585.79
Mercury Publishing Co.,	159.18
Mogul Manufacturing Co.,	24.00
Municipal Engineering Co.,	2.00
N. B. Gas and Edison Light Co.,	353.52
N. B. Ice Co.,	30.29
N. B. Street Transportation Co.,	4.72
N. Y., N. H. & H. R. R. Co.,	49.62
N. B. Water Works,	29.00
Niagara Publishing Co.,	19.20
Thomas Norton,	8.10
Odd Fellows Building Association,	1,150.00
F. W. Oesting,	45.00
Parks Commission,	42.05
Edward M. Peirce,	9.00
Perkins & Chase,	7.50
S. F. Perry & Son,	23.00
D. M. Piper,	1.50
William D. Richards,	12.50
Pardon Russell,	150.00
Pardon Russell, Jr.,	43.15
Mortimer Searles,	3.10
Sewers, general,	7.86
C. R. Sherman & Son,	2.30
J. H. Sherman,	13.50
William H. Sherman,	3.00

Smith & Goold,	9.00	
So. Mass. Telephone Co.,	224.31	
Nat. P. Sowle,	1.32	
M. V. Sylvia, M. D.,	11.25	
Arthur F. H. Taber,	97.02	
R. W. Taber,	48.86	
Thomas B. Tripp,	55.00	
George Tyler & Co.,	192.00	
Union for Good Works,	49.04	
Michael Waters,	5.94	
John Wiley & Sons,	2.00	
Wilson & Wordell,	.57	
Charles F. Wing,	107.00	
Wood, Brightman & Co.,	50.85	14,948.21
		<u>\$126,719.45</u>

CR.

By appropriation,	\$71,020.00	
Special appropriation,	30,000.00	
Transfers from unappropriated funds,	9,590.28	
Cash receipts, as per Treasurer's report,	15,865.68	
Transfer to balance,	243.49	\$126,719.45

HIGHWAYS AND STREETS — COLLECTING ASHES.

DR.

Pay rolls,		\$98.12
Miscellaneous :		
E. Anthony & Sons, Inc.,	\$6.15	
Evening Journal Co.,	14.87	
T. M. Hart & Co.,	13.51	
Highways and streets,	7,519.26	
Mercury Publishing Co.,	6.72	7,560.51
		<u>\$7,658.63</u>
To transfer to balance,		233.63
		<u>\$7,892.26</u>

CR.

By appropriation,	\$7,000.00	
Cash receipts, as per Treasurer's report,	892.26	\$7,892.26
		<u></u>

HIGHWAYS AND STREETS—EMERGENCY FUND.

DR.

Pay rolls,	\$1,810.51	
To transfer to Poor Dept. Emergency Fund,	3,189.49	\$5,000.00
		<u></u>

CR.

By transfer from unappropriated funds,		\$5,000.00
	<u></u>	<u></u>

HIGHWAYS AND STREETS—MOVING SNOW AND ICE.

DR.

Pay rolls,		\$1,054.68
Miscellaneous :		
DeWolf & Vincent,	\$15.50	
Highways and streets,	434.82	450.32
		<u>\$1,505.00</u>

CR.

By appropriation,	\$1,500.00	
Cash receipts, as per Treasurer's report,	5.00	\$1,505.00

INCIDENTALS.

DR.

Advertising :

E. Anthony & Sons, Inc.,	\$357.72	
Catholic Union Publishing Co.,	35.00	
Evening Journal Co.,	281.02	
Mercury Publishing Co.,	287.36	\$961.10

Armories and military property :

Jason L. Ballou,	294.68	
George F. Bartlett, trustee,	80.00	
George T. Cornell,	10.50	
George N. Gardiner,	8.15	
Joseph L. Gibbs,	20.00	
F. B. Greene, agent,	784.00	
H. F. Hammond,	10.47	
M. F. Hickey,	161.88	
E. R. Lewis,	800.00	

Lincoln Guards,	54.00	
S. C. Lowe,	3.45	
Peirce Furnishing Co.,	70.11	
Abner P. Pope,	97.41	
Frank C. Smith,	9.65	
David F. G. Ward,	19.90	
Wood, Brightman & Co.,	13.89	2,438.09

Assessors :

W. J. Abrams,	329.75	
Clifford Baylies,	41.75	
Arthur L. Blackmer,	459.80	
George E. Briggs,	407.41	
H. J. Brownell,	350.38	
Thomas Burgess,	170.50	
Arthur B. Chappell,	374.25	
F. G. Dews,	12.50	
George N. Gardiner,	48.50	
John E. Gibbs,	17.50	
Amos W. Hadley,	13.75	
B. F. Hathaway, Jr.,	47.50	
A. B. Macomber,	32.50	
M. T. Mills,	457.50	
George H. Nye,	96.60	
George W. Parker,	188.00	
Frank Paul,	326.50	
John A. Ruggles,	200.00	
H. C. Russell,	648.28	
William A. Russell,	291.75	
Irving G. Stanton,	77.50	
Lewis H. Stedman,	25.00	
Leroy W. Swift,	21.00	
R. R. Topham,	846.00	
C. A. Tuell,	569.00	
C. D. Tuell,	200.00	6,253.22

Birth, marriage and death returns :

L. Z. Auclair,	2.75
D. S. Belanger, M. D.,	3.75
Robert G. Bennett,	19.25
Dr. William E. Brownell,	8.50
Mary Cooper,	.50
Louisa A. Ellis,	3.00
Mary Flitcroft,	8.50
Sarah Graves,	.75
Dr. G. de N. Hough,	4.25
Dr. Charles R. Pratt,	4.00

Esther M. Jameson,	11.00	
J. B. Jean,	48.75	
A. P. Lagasse,	14.00	
Napoleon Landry,	5.00	
Daniel B. Leonard,	1,020.40	
Dr. M. H. Leonard,	61.75	
C. F. Lussier, M. D.,	21.00	
Moriarty Bros.,	8.25	
T. J. Murphy,	15.50	
Dr. W. J. Nickerson,	3.00	
Dr. L. Z. Normandin,	72.50	
Dr. Edward Peirce,	1.75	
Dr. C. A. B. Peterson,	7.25	
Dr. A. M. Pierce,	16.25	
Dr. J. C. Pothier,	14.50	
Dr. William G. Potter,	6.50	
Dr. Charles A. Pratt,	11.75	
Caroline Richards, M. D.,	4.00	
Dr. J. C. Shaw,	5.75	
Dr. W. C. Sheehy,	6.75	
Dr. J. P. St. Germain,	23.25	
J. D. Sullivan,	36.25	
Elizabeth Thompson,	1.50	
J. V. Thuot, M. D.,	21.75	
Harriet Tripp,	1.25	
W. C. Vaughan, Jr.,	61.25	
Dr. Amos P. Webber,	17.00	
Joseph S. Williams,	37.00	
E. T. Wilson,	79.00	1,689.15
City Treasurer and Collector of Taxes :		
W. J. Abrams,	13.75	
Arthur L. Blackmer,	25.00	
Board of Assessors,	75.00	
H. J. Brownell,	40.00	
Thomas Burgess,	48.00	
Arthur B. Chappell,	25.00	
H. B. Gardner,	18.75	
Thomas D. Howland,	795.00	
B. F. Hathaway, Jr.,	26.25	
Thomas D. Howland,	36.25	
Frank Paul,	75.00	
A. C. Pierce,	6.00	
H. C. Russell,	15.00	
F. P. P. Tuell,	12.50	1,211.50

City Clerk :

Ruth S. Sherman,	761.47	
Florence T. Weeden,	371.00	1,132.47

Damages, legal expenses, etc. :

Nathaniel Adams,	378.00	
A. G. Alley, Jr.,	10.00	
E. L. Barney,	300.00	
Peleg Bosworth,	200.00	
S. A. Brownell,	20.30	
Clifton C. Cornish,	5.00	
J. W. DeMoranville,	50.00	
Thomas F. Desmond,	55.75	
E. K. Dollard,	25.00	
Fish, Richardson & Storrow,	265.93	
Albert Garant,	803.00	
Elizabeth C. Hastings,	72.25	
H. M. Knowlton,	500.00	
Est. Alice P. McFarlin,	750.00	
J. W. Nickerson,	39.76	
Robert A. Terry,	25.00	
J. I. da Terra,	25.00	
Mary C. Washburn,	50.00	
Sophia E. Weaver,	350.00	3,924.99

Elections, 1893 :

Isaac L. Ashley,		7.00
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Fourth of July :

John R. Brock,	3.00	
Evening Journal Co.,	.80	
W. W. Guthrie,	3.00	
George W. Howland,	3.00	
J. D. T. Kent,	3.00	
A. R. Maxfield,	3.00	
E. S. Robenault,	3.00	
Theodore Taylor,	3.00	
James Warfield,	3.00	
John Watson,	3.00	27.80

Janitors :

S. S. Broadbent,	407.33	
R. Litchfield,	12.50	
D. J. McAuliffe,	330.00	
D. M. Piper,	689.00	1,438.83

Labor and cleaning :

Kate Laughlin,	4.00	
Henry T. Phillips,	10.00	

A. D. Piper,	89.00	
C. B. Piper,	57.75	
D. M. Piper,	16.40	
J. Arthur Piper,	15.00	192.15
Lights and fuel:		
F. T. Akin & Co.,	12.50	
Merton P. Ashley,	67.40	
T. S. Corson,	90.46	
Hart & Akin,	66.85	
Albert W. Holmes,	431.13	
N. B. Gas and Edison Light Co.,	2,646.87	
John N. O'Brien,	8.75	3,323.96
Miscellaneous:		
Gilbert Allen, cemetery care,	5.00	
A. R. Andrews, office supplies,	1.00	
E. Anthony & Sons, subscriptions,	30.36	
Dr. D. C. Ashley, examining cattle,	39.00	
Isaac L. Ashley, hack hire,	49.75	
Ballard & Kirschbaum, telephone index,	4.00	
Jason L. Ballou, fitting shelf,	.88	
J. V. Bancroft, sprinkling,	30.00	
F. C. Barrows, expense of committee,	9.50	
Bates Manuf'g Co., numbering machines,	32.00	
George C. Bliss, cemetery care,	10.59	
Boston Daily Advertiser, subscriptions,	6.00	
Zenas M. Briggs, agent Postal Guide,	6.00	
Briggs & Lawrence, use of furniture,	32.21	
Charles O. Brightman, labor,	4.03	
F. S. Brightman, subscriptions,	8.00	
Bristol county, board of truants,	1,017.29	
Albion T. Brownell, lunches,	23.50	
S. A. Brownell, expense of committees,	88.36	
T. S. Buck, rubber stamps,	114.28	
Cemetery funds, cemetery care,	982.53	
Church & Hammond,	1.05	
City Auditor, office expenses,	37.85	
City Clerk, " "	120.55	
City Treasurer, " "	700.02	
Coggeshall, Maxfield & Co., tin box and lettering,	8.00	
Charles C. Chamberlain, cases,	9.50	
Charles R. Cornell, hack hire,	2.50	
Cumberland Association Naval Veterans,	25.00	
C. S. & B. Cummings, matches, etc.,	5.00	
R. L. Day & Co., expense on bonds,	6.00	

Thomas F. Desmond, ordinances,	250.00
W. S. Dodge & Sons, soap,	31.50
F. M. Douglass, office sundries,	6.35
A. B. Drake, city forester,	66.67
L. B. Ellis, screws and wire,	1.62
Evening Journal Co., subscriptions,	6.25
George S. Fox, agent, office supplies,	7.00
Susan R. Gardner, stenographer,	35.50
G. A. R. posts,	600.00
E. A. Gilfillen & Co., scales,	3.00
Charles A. Gray, freight and carting,	3.38
W. A. Greenough & Co., directories,	22.00
Hart & Akin, painting and lettering,	3.29
Fred F. Hammond, cemetery care,	3.75
Haskell & Tripp, soap,	.48
Nath. Hathaway, analysis of milk,	25.00
N. P. Hayes, hardware,	2.15
James B. Hazzard, shellacing,	.35
Highways and streets, trimming trees,	537.49
Hardy Hitch, Jr., fitting awnings,	2.25
Samuel Hobbs & Co., bonds,	57.75
Jona. Howland, Jr., cemetery care,	12.27
C. G. Hurlburt, punches,	8.50
H. S. Hutchinson & Co., statutes,	4.25
Nathan G. Jenney, office sundries,	1.70
Est. F. A. Kempton, rent,	25.00
Est. David Kempton, 2d, rent,	75.00
Kirby & Hicks, hack hire,	181.00
William Lowe, cemetery care,	21.80
W. A. Mackie, type writing,	11.96
H. M. Maine, beating carpets,	2.28
George F. Maxfield, box and lettering,	4.35
Mercury Publishing Co., pamphlets,	14.50
Mercury Publishing Co., subscriptions,	30.00
Merchants National Bank, rent,	150.00
Meyrell's band, services,	78.00
Morgan, Crossman & Co., supplies,	7.00
S. G. Mandell, fitting locks,	3.50
E. C. Morris Safe Co., safe,	362.85
J. D. Munroe, services,	25.00
National Bank of the Commonwealth, ex- pense on bonds,	5.00
N. B. City Guards, rent,	12.25
N. B. Cordage Co., line,	.59
N. B. Ice Co., ice,	33.87

N. Y., N. H & H. R. R. Co., rent,	200.00
“ “ “ gateman,	59.00
“ “ “ mileage tickets,	40.00
“ “ “ freight,	7.15
North Congregational church, use of bell,	60.00
James H. Nuttall, soap,	1.88
George H. Nye, preparing maps,	54.50
Odd Fellows Building Association, rent,	162.50
Edmund O'Keefe, office expenses,	30.00
Pairpoint Manufacturing Co., supplies,	1.50
Frank H. Peckham, teaming,	94.63
George H. Peckham, teaming,	76.50
Edward M. Pierce, hacking,	31.00
Arthur E. Perry, expense of committee,	82.31
S. F. Perry & Son, hacking,	4.50
D. M. Piper, messenger,	30.00
H. G. Pomeroy, repairing lawn mower,	1.25
Purrington, Brown & Richards, soap,	
brushes, mops and dusters,	52.74
Mortimer Searles, stamps and pads,	27.30
Shedd & Sarle, blue prints,	63.00
C. R. Sherman & Son, fitting locks,	5.60
William H. Sherman, hacking,	17.40
Ruth S. Sherman, type writing,	5.00
F. R. Slocum, document case,	25.00
Henry Smith, expenses,	24.85
Nat. C. Smith, drawings,	100.00
So. Mass. Telephone Co., telephones,	728.78
“ “ “ tolls,	39.90
H. J. Taylor & Son, supplies,	.50
William H. Tucker, teaming,	.50
Union street Railway Co., cemetery care,	43.61
Tug Volunteer, services,	25.00
Henry F. West, use of boat,	52.00
W. U. Telegraph Co., sounder service,	38.50
“ “ “ telegrams,	1.81
E. B. Whiting & Co., towels,	11.52
J. R. Whipple & Co., expense of committee,	16.60
Wilcox & Richmond wharf, rent,	300.00
George Wilson, cemetery care,	10.00
Harry B. Wood, expenses,	5.00
Charles E. Woodworth, repairing city clock,	1.50

1895. AUDITOR'S REPORT.

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Yale & Towne Manufacturing Co., cleaning time lock,	15.00	8,694.03
		<u>\$31,294.29</u>
January 7, 1894. To balance,		516.67
		<u>\$31,810.96</u>

Cr.

January 1, 1894. By balance,	\$1,678.00	
By appropriation,	15,200.00	
Special appropriation,	853.00	
Transfers from unappropriated funds,	10,325.00	
Cash receipts, as per Treasurer's report,	175.43	
Transfer to balance,	3,579.53	\$31,810.96

Cr.

January 7, 1895. By balance,	\$516.67
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KEMPTON STREET SCHOOLHOUSE AND LOT.

Cr.

January 7, 1895. By balance,	\$690.68
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LAYOUT AND ACCEPTANCE SEARS COURT.

DR.

Pay rolls,	\$78.45	
Highways and streets,	417.92	
Sewers, general account,	41.63	\$538.00
To transfer to balance,		462.00
		<u>\$1,000.00</u>

CR.

January 7, 1895. By balance,	<u>\$1,000.00</u>
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LICENSE COMMISSION.

DR.

Isaac L. Ashley,	\$5.00	
F. S. Brightman,	39.67	
Evening Journal Co.,	79.12	
H. S. Hutchinson & Co.,	21.10	
S. F. Perry & Son,	4.00	
E. G. Reynolds,	6.00	
Mortimer Searles,	2.50	\$157.39
To transfer to balance,		42.61
		<u>\$200.00</u>

CR.

Transfer from unappropriated funds,	<u>\$200.00</u>
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LIGHTING THE STREETS.

DR.

Globe Gas Lighting Co.,	\$13,686.86	
N. B. Gas and Edison Light Co.,		
Arc lights,	17,940.69	
Gas lights,	9,555.02	
Incandescent lights,	423.68	\$41,606.25
Sundries :		
Globe Gas Lighting Co.,	78.00	
Est. F. A. Kempton,	6.25	
N. B. Gas and Edison Light Co.,	48.00	132.25
		<u>\$41,738.50</u>

CR.

By appropriation,	\$26,600.00	
Transfer from unappropriated funds,	1,130.00	
Special appropriation,	10,000.00	
Transfer to balance,	4,008.50	\$41,738.50

NEW BEDFORD AND FAIRHAVEN BRIDGE.

DR.

Pay rolls,		\$1,228.83
Repairs, etc. :		
Lot B. Bates,	\$2.40	
Abram Chace & Co.,	1,470.60	
James D. Driggs,	50.70	
David Duff & Son,	4.05	
Highways and streets,	21.06	
James L. Sherman,	4.13	
W. F. Sturtevant,	7.06	
F. L. Sowle & Co.,	.42	1,560.42
		<hr/>
		\$2,789.25
To transfer to balance,		710.75
		<hr/>
		\$3,500.00

CR.

By appropriation,	\$2,000.00	
Special appropriation,	1,500.00	\$3,500.00
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NEW BEDFORD SCHOOL COMMITTEE.

"HOWLAND FUND."

DR.

Charles F. Adams,	\$57.50
Ally & Bacon,	8.00
American Book Co.,	74.31
Board of Topographical Survey,	.75
Boston School Supply Co.,	58.12
Arthur C. Boyden,	60.00
F. S. Brightman,	9.00
T. S. Buck,	3.00
P. P. Caproni & Bro.,	7.30

T. H. Castor & Co.,	55.15
Damrell & Upham,	11.75
Denison Manufacturing Co.,	25.00
Oliver Ditson Co.,	2.35
Eagle Pencil Co.,	3.21
Educational Publishing Co.,	40.68
Eimer & Amend,	27.71
Franklin Educational Co.,	5.03
Frost & Adams,	2.14
Ginn & Co.,	760.01
Charles A. Gray,	5.30
J. L. Hammett,	92.00
Charles N. Haskins,	12.00
Hatch & Co.,	34.70
William E. Hatch,	5.00
John C. Haynes & Co.,	12.15
D. C. Heath & Co.,	91.97
Holden Patent Book Cover Co.,	82.36
Henry Holt & Co.,	3.50
Houghton, Mifflin & Co.,	252.56
H. S. Hutchinson & Co.,	32.85
W. A. Jennings,	16.00
D. J. Kane & Bro.,	75.27
E. L. Kellogg & Co.,	4.63
J. D. King,	11.00
Leach, Shewell & Sanborn,	77.84
Lee & Shepard,	102.41
Library Bureau,	10.25
Little, Brown & Co.,	5.15
D. Lothrop & Co.,	.40
A. M. Lombard,	71.85
James A. Mackie,	1.00
Maynard, Merrill & Co.,	18.00
T. H. McAllister,	20.70
N. B. Gas and Edison Light Co.,	.90
N. E. Publishing Co.,	14.50
Edward M. Peirce,	2.00
George Peirce,	337.00
Geo. S. Perry & Co.,	113.25
Porter & Coates,	2.16
Abbie T. Potter,	250.00
John E. Potter & Co.,	9.50
Prang Educational Co.,	29.28
G. P. Putnam's Sons,	12.55
Queen & Co.,	22.80

George H. Richter & Co.,	11.23	
Carl Schoenhof,	1.31	
C. R. Sherman & Son,	3.75	
Silver, Burdett & Co.,	20.85	
Smith-Carleton Iron Co.,	3.00	
Robert W. Taber,	78.10	
Ullman Manufacturing Co.,	7.37	
University Publishing Co.,	16.67	
Charles F. Wing,	4.13	\$3,190.25
January 7, 1895. To balance,		1,517.00
		<u>\$4,707.25</u>

Cr.

January 1, 1894. By balance,	\$1,707.25	
Cash receipts, as per Treasurer's report,	3,000.00	\$4,707.25

Cr.

January 7, 1895. By balance,	\$1,517.00
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NEW BEDFORD SCHOOL COMMITTEE.

JONATHAN BOURNE PRIZE FUND.

Dr.

W. E. Hatch,	\$60.00	
January 7, 1895. To balance,	30.00	\$90.00

Cr.

January 1, 1894. By balance,	\$30.00	
By cash receipts, as per Treasurer's report,	60.00	\$90.00

Cr.

January 7, 1895. By balance,	\$30.00
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NEW BEDFORD WATER WORKS.

DR.

To expenditures as per drafts of the New Bedford Water Board,	\$86,560.64	
January 7, 1895. To balance,	57,963.88	\$144,524.52

CR.

January 1, 1894. By balance,	\$41,337.41	
By appropriation,	12,000.00	
Cash receipts, as per Treasurer's report,	91,187.11	\$144,524.52

CR.

January 7, 1895, By balance,		\$57,963.88
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NEW BEDFORD WATER WORKS.

FURTHER WATER SUPPLY.

DR.

To expenditures as per drafts of the New Bedford Water Board,	\$484.05	
January 7, 1895. To balance,	1,218,147.95	\$1,218,632.00

CR.

By special appropriation,	\$1,200,000.00	
Cash receipts, as per Treasurer's report,	18,632.00	\$1,218,632.00

CR.

January 7, 1895. By balance,		\$1,218,147.95
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PARKS FUND.

Dr.

To transfer to Parks Commission,	\$27,228.05
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Cr.

January 1, 1894. By balance,	\$27,228.05
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PARKS AND SQUARES.

Dr.

Pay rolls,	\$509.93	
Highways and streets,	166.89	\$676.82
Transfers to Parks Commission,		1,202.99
		<hr/> \$1,879.81
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Cr.

January 1, 1894. By Balance,	\$1,879.81
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PARKS COMMISSION.

DR.

Pay rolls,	\$14,172.59
Supplies, etc.:	
F. T. Akin & Co.,	\$5.10
E. Anthony & Sons, Inc.,	5.74
Isaac L. Ashley,	10.00
L. Bartel,	4.80
William Baylies,	6.25
Bowker & Tripp,	.45
Brightman Bros.,	11.35
C. O. Brightman,	3.00
F. S. Brightman,	41.70
C. H. Brownell & Sons,	50.69
George A. Brownell,	.75
S. A. Brownell,	87.00
Charles W. Coggeshall,	37.26
Combination Ladder Co.,	735.00
William S. Cook,	2.92
C. S. & B. Cummings,	.30
Davis Bros.,	.50
Denison Bros. Co.,	44.00
DeWolf & Vincent,	65.73
A. B. Drake,	119.20
David Duff & Son,	24.05
George Eggers,	54.06
Evening Journal Co.,	28.08
B. F. Fuller,	1.80
J. N. Gage,	1.35
Charles A. Gray,	51.50
George D. Greene,	8.79
Greene & Wood,	39.72
Jona. Handy,	2.28
T. M. Hart & Co.,	46.63
Hatch & Co.,	22.20
George E. Hatch,	22.40
A. E. Hathaway,	6.00
D. L. Hathaway,	119.49
N. P. Hayes,	266.55
J. Edwards Herman,	1,649.55
Hillman, Washburn & Co.,	19.64
Highways and streets,	3,251.42

Samuel C. Hunt,	25.00	
H. S. Hutchinson & Co.,	16.50	
P. P. Jenney & Son,	51.67	
B. S. Jenkins,	18.44	
Joseph Kennedy,	.25	
George Kirby, Jr., & Co.,	3.38	
Kirby & Hicks,	45.00	
S. C. Lowe,	124.41	
John McCullough,	3.40	
Mercury Publishing Co.,	4.65	
James K. Murkland,	24.00	
N. B. Cordage Co.,	70.74	
N. Y., N. H. & H. R. R. Co.,	12.30	
F. W. Oesting,	10.00	
Olmstead, Olmstead & Eliot,	105.27	
S. S. Paine & Bro.,	1.10	
Edward M. Peirce,	2.00	
Perkins & Chase,	3.35	
George W. Piper,	52.62	
Purrington, Brown & Richards,	17.80	
Sewers, general,	225.60	
C. R. Sherman & Son,	.80	
James L. Sherman,	356.51	
So. Mass. Telephone Co.,	1.25	
F. L. Sowle & Co.,	489.31	
Nat. P. Sowle,	3.06	
Sturtevant Bros.,	374.00	
E. C. Taber,	138.38	
E. & K. C. Terry,	386.70	
Lemuel T. Terry,	6.00	
J. H. Thomson,	2.00	
Thomas B. Tripp,	10.00	
William R. West,	3.92	
W. F. Williams,	5.30	
Wood, Brightman & Co.,	167.58	9,609.54
		<u>\$23,782.13</u>
January 7, 1895. To balance,		4,821.86
		<u>\$28,603.99</u>

CR.

By transfer from Parks Fund,	\$27,228.05	
Transfer from Parks and Squares,	1,202.99	
Cash receipts, as per Treasurer's report,	172.95	\$28,603.99

CR.

January 7, 1895. By balance,	\$4,821.86
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PERMANENT DEBT.

DR.

Principal (bonds) paid,	\$129,000.00	
Interest on bonds,	89,161.67	
Interest on trust funds,	6,786.00	
Interest on notes,	9,276.06	\$234,223.73
January 7, 1895. To balance,		1,179.60
		<u>\$235,403.33</u>

CR.

By appropriation,	\$95,000.00	
Cash receipts, as per Treasurer's report,	140,403.33	\$235,403.33

CR.

January 7, 1895. By balance,	\$1,179.60
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PLATTING SYSTEM.

DR.

Pay rolls,		\$636.32
Shedd & Sarle, on account of contract,	\$15,000.00	
F. S. Brightman, stationery,	1.25	
Hatch & Co., express,	4.00	
H. S. Hutchinson & Co., stationery,	12.25	
Library Bureau, supplies,	94.20	
Sanford-Sawtelle Co., case,	58.00	
W. F. Williams, sundries,	4.70	15,174.40
January 7, 1895. To balance,		4,974.28
		<u>\$20,785.00</u>

CR.

January 1, 1894. By balance,	\$17,435.00	
By transfer from unappropriated funds,	3,350.00	\$20,785.00

CR.

January 7, 1895. By balance,		<u>\$4,974.28</u>
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POLICE DEPARTMENT.

DR.

Salaries :

George Douglass, chief,	\$104.81
E. C. Gardiner, chief,	1,363.73
Timothy C. Allen, captain,	1,274.03
James L. Wilber, captain,	1,274.03
Lemuel D. Adams, lieutenant,	1,172.11
Seth E. Bryant, lieutenant,	1,172.11

Thomas W. Comstock, lieutenant,	1,172.11	
Thomas Fay, lieutenant,	1,172.11	
Arthur H. Jones, lieutenant,	860.51	
Ellery Peirce, lieutenant,	1,172.11	
Thomas J. Taft, lieutenant,	1,172.11	
Joseph B. Wing, lieutenant,	309.54	
Franklin L. Hathaway, inspector,	1,172.11	
John C. Parker, inspector,	1,172.11	
Henry N. West, clerk,	780.00	\$15,343.53

Pay rolls :

Pay of regular officers, housekeepers, etc.,	65,213.47	
Pay of special police,	3,189.20	68,402.67

Carriage and horse hire :

Isaac L. Ashley,	\$57.60	
S. Desautels,	3.00	
James A. Jay,	75.80	
Kirby & Hicks,	5.00	
S. F. Perry & Son,	.50	
E. G. Reynolds,	3.35	
William D. Richards,	28.60	
William H. Sherman,	16.90	
T. S. Swift,	5.00	195.75

Supplies :

Bliss & Nye,	25.18	
George L. Briggs,	16.85	
Briggs & Lawrence,	10.75	
C. H. Brownell & Sons,	3.96	
T. S. Corson,	294.53	
Driscoll, Church & Hall,	18.98	
D. B. Folger,	26.12	
T. M. Hart & Co.,	.56	
N. P. Hayes,	1.25	
A. W. Holmes,	262.59	
C. H. & H. A. Lawton,	3.15	
C. W. Lerner & Co.,	79.00	
John P. Lovell Arms Co.,	21.38	
J. Roland Macy,	17.99	
Pulsifer, Jordan & Co.,	52.65	
S. P. Richmond & Co.,	9.12	
George W. Simmons & Co.,	9.00	
So. Mass. Telephone Co.,	8.65	861.71

Police Signal :

Ame & Co.,	18.00
Herbert M. Atwood,	379.66

Babbitt, Wood & Co.,	2.13	
William Baylies,	102.37	
J. A. & W. Bird & Co.,	64.11	
Brownell, Ashley & Co.,	2.10	
James Burke,	9.00	
H. E. Chadwick,	12.00	
William Cronin,	66.65	
Evening Journal Co.,	3.00	
Fire department,	780.00	
Fichtenmeyer & Flynn,	48.25	
T. J. Gifford & Co.,	15.60	
H. C. Hathaway,	990.98	
N. P. Hayes,	1.50	
S. C. Hunt,	25.00	
James A. Jay,	27.00	
J. Frank Kirk,	60.65	
S. G. Mandell,	11.04	
Mercury Publishing Co.,	2.50	
New England Gamewell Co.,	198.77	
Poor department,	79.30	
J. H. Shay,	6.00	
I. M. Smith,	63.36	
So. Mass. Telephone Co.,	1,350.00	
Union Oil Co.,	6.75	
D. W. Wilson,	2.10	4,327.82
Miscellaneous :		
Lemuel D. Adams, committing,	7.39	
Edgar W. Allen, committing,	21.24	
Timothy C. Allen, committing,	6.70	
Walter Almond, committing,	3.00	
E. Anthony & Sons, advertising,	19.31	
Henry Arnett, court expenses,	114.20	
James Arnett, committing,	12.47	
Dr. D. C. Ashley, services,	44.00	
Ballard & Kirschbaum, index,	1.00	
E. L. Barney, services,	105.00	
George L. Briggs, newspapers,	20.32	
Briggs & Lawrence, furniture,	178.53	
F. S. Brightman, stationery,	41.56	
Albion T. Brownell, lunches,	2.25	
Olive A. Brownell, services,	42.30	
Thomas F. Callanan, committing,	9.10	
Patrick Canavan, committing,	8.02	
City Bill Posting Co.,	2.60	
Coggeshall, Maxfield & Co.,	1.35	

Robert Cook, horse,	13.00
Z. B. Davis,	25.00
Edwin Dews, stationery,	6.49
R. N. B. Doane, photographs,	9.50
A. H. & J. J. Donaghy, laundry,	133.12
George Douglass, keeper of lockup,	4.30
Albert F. Dunlap, services,	10.00
Evening Journal Co., printing,	80.97
E. C. Gardiner, keeper of lockup,	81.19
E. C. Gardiner, office expenses,	25.75
Mrs. E. K. Gardner, meals,	290.40
T. J. Gifford & Co., fitting steam pipes, etc.,	34.84
C. A. Gray, freight and carting,	6.00
W. A. Greenough & Co., directories,	10.00
Franklin L. Hathaway, committing,	20.00
N. P. Hayes, hardware,	3.97
Dr. S. W. Hayes, services,	2.00
Highways and streets, concrete,	50.46
Hillman, Washburn & Co.,	22.06
H. S. Hutchinson & Co., stationery,	6.27
B. S. Jenkins, setting glass,	.75
William L. Kelley, repairing badges,	6.50
F. A. Kempton est., rent,	6.25
Dr. M. H. Leonard, services,	35.00
L. A. Littlefield, plating,	3.25
T. E. Mahoney, repairing,	6.36
H. M. Maine, beating carpets,	4.76
J. L. G. Mason, mason work,	.54
Charles McBay, committing,	8.04
Mercury Publishing Co., printing,	26.20
F. A. Milliken, services,	10.00
Robert Moynan, committing,	12.71
N. B. Boiler and Machine Co., rep'g boiler,	3.43
N. B. Gas and Edison Light Co., lighting,	851.10
N. B. Ice Co., ice,	29.24
Dr. W. J. Nickerson, services,	2.00
John C. Parker, committing,	28.55
Peirce Furnishing Co., carpet,	43.13
Dr. A. M. Pierce, services,	2.00
E. H. Pierce, hose,	9.80
George H. Pinkham, committing,	6.94
A. P. Pope, carpenter work,	21.71
William G. Potter, M. D., services,	10.00
William E. Roscoe, committing,	10.98
A. K. P. Sawin, labor and carting,	21.08

C. R. Sherman & Son, keys and locks,	13.49	
F. R. Sloeum, furniture,	23.00	
So. Mass. Telephone Co., telephones,	421.15	
“ “ “ tolls,	49.90	
Wm. F. Sturtevant, setting glass,	7.00	
Timothy Sullivan, committing,	16.10	
Robert W. Taber, stationery,	20.35	
H. H. Tillson, express,	2.70	
S. A. Tripp, stovepipe and fitting,	6.40	
Willis C. Underwood, committing,	4.50	
Viall & Cook, rent,	216.71	
Watson & Fuller, repairing clubs,	16.95	
West & Jones, use of boat,	5.00	
James L. Wilber, keeper of lockup,	14.51	
D. W. Wilson, repairing,	4.05	
Thomas H. Wilson, committing,	6.19	
James A. Wixon, committing,	27.17	
R. B. Wood, fitting chairs,	5.99	
Wood, Brightman & Co.,	.15	
Emma Young, meals,	48.60	3,545.89
		<u>\$92,677.37</u>

CR.

By appropriation,	\$62,320.00	
Special appropriation,	12,500.00	
Transfer from unappropriated funds,	10,300.00	
Cash receipts, as per Treasurer's report,	1,050.40	
Transfer to balance,	6,506.97	<u>\$92,677.37</u>

POOR DEPARTMENT.

DR.

Salaries,

Orrick Smalley, secretary,	\$260.40	
James E. Stanton, secretary,	614.41	
A. H. W. Carpenter,	126.50	
Thomas H. Knowles,	25.00	
Charles S. Paisler,	127.05	
James E. Stanton,	83.33	
Dr. William G. Potter,	1,651.06	
Ella F. Bucklyn, clerk,	709.55	
Augustus A. Wood, assistant,	608.25	
Rev. E. Williams, chaplain,	165.00	
S. P. Coffin, superintendent wood yard,	365.00	
A. A. Chace, superintendent almshouse,	845.00	
Mrs. A. A. Chace, matron,	100.00	\$5,680.55

Groceries :

Acushnet Coöperative Association,	560.00
George L. Adams,	2.50
Frederick A. Allen,	1.50
A. G. Alley, Jr.,	15.50
Joseph Andre,	4.00
T. L. Andrews,	18.00
Joseph Antone,	4.50
William Armitage,	164.00
Reuben Arsenault,	5.00
J. Barlow & Co.,	27.00
J. W. Bates & Co.,	105.00
Lot B. Bates,	59.00
F. W. Baylies & Co.,	39.00
Beaudry & Co.,	7.00
C. Beaudry,	3.00
A. & A. L. Beaumont,	109.00
Horace Bennett,	4.00
William H. Bennett,	32.00
Fred J. Bentley,	5.00
F. C. Bliss & Son,	191.50
A. N. Bolles,	60.00
Boston Beef Co.,	878.50
William L. Bradford,	70.00
J. W. Braley, Jr.,	272.50
D. Bromley,	104.00

C. H. Brownell & Sons,	392.06
Theo. Burgess & Son,	100.50
William Burke,	7.00
George H. Carpenter,	14.50
Albert Cassidy,	30.50
Central Union Association,	841.75
William H. Chappell,	61.00
C. W. Chase,	12.00
Joseph Chausse,	300.20
Chicago Beef Co.,	197.50
Robert Clark,	275.00
Charles L. Clapp,	1.50
Abram Cohen,	27.50
W. C. Collingwood & Co.,	14.00
T. P. Collins,	1.50
E. N. Corey,	1.00
Coxen & Tripp,	18.50
C. S. & B. Cummings,	120.00
F. A. Dammon,	129.00
Dudley Davenport,	269.00
George E. Davenport,	35.00
C. S. Davis est.,	20.00
James Davis,	46.50
S. Desautels,	33.50
John Dick,	56.00
D. F. Driscoll,	3.00
M. Dugan,	25.00
Joseph Fernandez,	1.50
Joseph H. Fernandez,	71.00
L. C. Fish,	21.00
D. B. Folger,	250.50
John B. Francis,	359.50
E. M. Fraasier,	120.50
Garrant Bros.,	138.50
Henry Gatie,	20.50
D. H. Gauthier,	22.50
L. F. Gillespie,	22.00
Lyman B. Gray,	16.00
M. Goggin,	1.00
John Greenwood,	37.00
H. S. Hammond,	242.00
Harrison & Son,	12.00
James Haworth,	28.00
Benj. Hebert,	11.50
George Hill,	24.00

William Hindle,	56.00
Roland Holcomb,	59.00
S. L. Howitz,	22.50
A. Howland,	6.00
B. G. Howland,	21.50
George Hunter,	466.50
Industrial Coöperative Association,	61.50
W. M. Jenks,	4.00
Patrick Jordan,	64.00
King & Rose,	7.50
King & Souza,	15.00
Joseph Krajhanzl,	10.00
Joseph Lagasse,	60.00
Valere Langlois,	5.50
Jesse Law,	102.50
Ferdinand G. Lawrence,	3.00
Charles W. Lawton,	66.00
Clark Leavitt,	50.50
W. H. Lefort,	29.50
H. Lenhart,	59.50
George Levy,	2.00
John H. Lowe,	194.50
Thomas E. Luce,	16.00
William T. Luce,	6.50
William T. Luce, Jr.,	16.00
George W. Macomber,	48.00
Thomas B. Martin,	16.50
Manuel B. Mello,	14.50
J. Roland Macy,	3.32
McDonnell Bros.,	20.00
Peter McNulty,	3.00
L. E. Milliken,	139.00
William T. Monerietff,	65.50
Monte Pio Coöperative Association,	131.50
C. M. Morse, Jr.,	4.00
Thomas J. Murphy,	159.50
John Notter,	54.00
Alfred Nye,	100.00
W. C. O'Connor,	94.00
Josephine O'Neil,	45.50
P. J. Ostignay,	1.50
A. L. Peck & Co.,	70.00
Peck & Cole,	6.00
A. E. Perry & Co.,	43.50
Charles F. Perry,	364.50

Frank Perry,	44.50	
Joe Perry,	1.50	
Philip Phenix,	34.50	
A. Plotner,	8.00	
H. L. Plotner,	24.00	
Joseph Pluff,	9.00	
C. R. Poirier,	6.00	
E. L. Potter,	113.50	
W. F. Raymond,	52.00	
J. F. Riley,	32.00	
W. A. Robbins,	47.50	
Daniel Robinson,	56.50	
David Rose,	223.50	
Manuel Rose,	2.00	
Joseph S. Sisson,	118.00	
Caleb Slade,	175.50	
C. F. Smith,	29.00	
M. W. Snailham,	48.75	
A. G. Stanton,	14.50	
M. A. Sullivan,	64.00	
Lawrence P. Sylvia,	3.00	
O. R. Taber & Son,	66.00	
Thomas Tomlinson,	33.00	
Augustus C. Tripp,	102.75	
Frank L. Viera,	10.50	
Franklin H. Vinal,	65.50	
A. R. Washburn,	229.50	
Esther Westbutsky,	1.50	
Whittaker & Cassidy,	1.50	
William T. Wilson,	6.00	
W. H. Wood, assignee,	46.50	
Fr. Zimmermann,	251.25	11.883.58
Boots, shoes and clothing:		
Haskell & Tripp,	1.86	
A. E. Lucas,	4.00	
Union Boot and Shoe Co.,	20.94	26.80
Fuel:		
C. M. Borden,	301.84	
T. S. Corson,	1,460.38	
David Duff & Son,	7.50	
A. W. Holmes,	472.99	
John A. Russell,	300.22	2,542.93

Burials :

Robert G. Bennett,	33.00	
J. B. Jean,	359.75	
A. P. Lagasse,	19.00	
Moriarty Bros.,	76.00	
T. J. Murphy,	119.00	
John F. Rogers,	10.00	
J. D. Sullivan,	58.00	
J. S. Sullivan,	306.00	
W. C. Vaughan, Jr.,	99.00	
E. T. Wilson,	211.00	1,290.75

Miscellaneous :

E. Anthony & Sons, advertising and sub- scriptions,	9.75	
Isaac L. Ashley, hack hire,	6.00	
William Baylies, transportation,	145.00	
H. A. Blackmer, truss,	4.00	
James E. Blake, trusses,	10.00	
Briggs & Lawrence, repairing chair,	2.00	
F. S. Brightman, stationery,	2.50	
A. H. W. Carpenter, extra services,	101.15	
William Carter, board,	3.60	
Church & Hammond, medicine,	.50	
City Treasurer, cash orders,	1,741.44	
Charles W. Coggeshall, filing saws,	3.15	
Coggeshall, Maxfield & Co., pipe and labor,	1.35	
Edwin Dews, binding,	9.00	
H. N. Dean, blacksmithing,	1.15	
George Eggers, powder and fuse,	5.75	
Evening Journal Co., printing,	65.22	
W. A. Greenough & Co., directories,	2.00	
E. T. Harris, board,	117.43	
N. P. Hayes, saw,	1.00	
Highways and streets; carting,	565.50	
H. S. Hutchinson & Co., stationery,	19.65	
P. P. Jenney & Son, sharpening,	24.10	
D. J. Kane & Bro., binding,	1.00	
Kirby & Hicks, hack hire,	.75	
S. G. Mandell, key,	.25	
Mercury Publishing Co., advertising and subscription,	9.50	
N. B. Gas and Edison Light Co., repairs,	2.32	
N. B. Ice Co., ice,	10.40	
N. Y., N. H. & H. R. R. Co., transportation,	.65	
Edward M. Peirce, hack hire,	2.50	

S. F. Perry & Son, hack hire,	13.00	
Alex. O. Pierce, setting glass,	.70	
Purrington, Brown & Richards,	1.65	
S. Robertson, stove,	5.00	
A. M. Rodgers, transportation,	110.00	
C. R. Sherman & Son, fitting keys,	1.05	
Allen Smith, Jr., hack hire,	7.75	
D. W. Snow, sign,	2.80	
So. Mass. Telephone Co., telephone,	100.00	
So. Mass. Telephone Co., tolls,	3.60	
Robert W. Taber, stationery,	13.64	
Dr. J. J. B. Vermynne, services,	2.00	
James B. Watkins, medicine,	11.70	3,141.50
Paid State hospitals :		
Commonwealth of Massachusetts,	804.65	
St. Luke's, New Bedford,	117.15	
Taunton Lunatic hospital,	7,831.26	
Westboro Insane hospital,	374.36	
Worcester Insane asylum,	175.03	
Worcester Lunatic hospital,	169.46	9,471.91
Paid cities and towns for supplies and board :		
Boston,	185.36	
Brockton,	3.58	
Cambridge,	20.85	
Dartmouth,	47.37	
Fairhaven,	3.30	
Fall River,	104.34	
Lawrence,	19.00	
Middleboro,	2.72	
Nantucket,	102.00	
North Attleboro,	49.00	
Taunton,	63.22	
Wareham,	16.00	
West Bridgewater,	48.00	
Westfield,	36.30	
Worcester,	34.35	735.39

ALMSHOUSE.

Clothing :

Ashley & Peirce,	18.44
J. Davis & Co.,	76.65
P. Devoll & Son,	57.12
J. H. J. Doane,	3.50
Thomas Donaghy,	91.54

George E. Faisneau,	136.94	
Haskell & Tripp,	55.97	
Knowles & Co.,	90.61	
Moore & Dick,	13.27	
Moynan & Co.,	11.31	
Sanders & Barrows,	38.25	
Sanders & Barrows Clothing Co.,	5.50	
J. V. Spare,	40.90	
Taber, Read & Gardner,	15.75	
H. H. Tillson,	10.25	
E. B. Whiting & Co.,	7.56	
J. & W. R. Wing & Co.,	59.00	732.56
Furnishings and supplies :		
Bliss & Nye,	14.58	
C. M. Borden,	93.70	
George B. Borden,	31.50	
George S. Bowen & Co.,	9.75	
Briggs & Lawrence,	27.62	
T. S. Corson,	462.34	
Hillman, Washburn & Co.,	43.42	
Albert W. Holmes,	305.75	
George S. Homer,	20.40	
W. J. Macy,	10.20	
Purrington, Brown & Richards,	15.88	
Sisson & Ring,	.25	
H. J. Taylor & Son,	16.54	
S. A. Tripp,	36.35	
C. F. Wing,	.53	1,088.81
Provisions and grain :		
William Baylies,	543.55	
Chadwick & Co.,	33.50	
E. E. Chadwick,	916.06	
Childs & Peckham,	53.76	
C. S. & B. Cummings,	71.37	
Davis & Hatch Spice Co.,	151.46	
Denison Bros. Co.,	554.52	
Driscoll, Church & Hall,	831.28	
Simeon Hawes,	5.40	
J. Roland Macy,	114.61	
W. F. Potter & Co.,	687.81	
S. P. Richmond & Co.,	37.34	
D. A. Snell,	2.81	
Samuel Wing,	17.60	4,021.07

Miscellaneous :

Almshouse help,	2,797.35
F. T. Akin & Co., paint,	21.42
Almy & Hitch, covering frame,	2.50
E. Anthony & Sons, subscription,	6.00
Dr. D. C. Ashley, services,	12.75
James E. Blake, medicine,	42.38
Horace Borden, use of horse,	12.00
C. T. Bosworth & Co., medicine,	42.46
Otis Briggs, horse,	150.00
F. S. Brightman, stationery,	1.20
T. A. Brightman, shoeing,	5.20
Brownell, Ashley & Co., blacksmithing,	70.79
C. H. Church, medicine,	48.97
Church & Hammond,	27.33
L. T. Cornell, shoeing,	3.00
William Cronin, repairing harnesses,	10.45
C. F. Cushing, " "	20.44
DeWolf & Vincent, hardware,	23.62
F. M. Douglass, medicine,	91.20
Fire department, dressing,	389.33
Edgar H. Gammons, pigs,	84.00
Joseph B. Gidley, threshing oats,	8.05
Marshall S. Greene, whitening,	82.00
Greene & Wood, lumber,	15.83
T. M. Hart & Co., blocks and cordage,	5.23
Hart & Akin, paint,	7.80
Jona. Handy, hardware,	5.80
N. P. Hayes, " "	20.13
H. S. Hutchinson & Co., stationery,	13.93
P. P. Jenney & Son, sharpening,	1.80
William L. Kelley, repairing clocks,	7.55
J. P. Kennedy, tubs,	19.92
Kirby & Hicks, hack hire,	30.50
C. H. & H. A. Lawton, medicine,	52.59
Frederick Macy, dressing,	7.65
E. V. McLeod, D. D., services,	3.00
Mercury Publishing Co., subscription,	6.00
C. S. Paisler, cement,	7.20
Police department, dressing,	30.15
Etta Shaw, services,	23.50
J. H. Shay, Jr., services,	8.00
W. S. Sherman, blacksmithing,	66.19
A. L. Shockley, services,	1.00
Singer Manufacturing Co., sewing machine,	35.00
So. Mass. Telephone Co., telephone,	47.00

David I. Tripp, butchering,	10.50	
P. A. Tripp,	10.00	
Wilson & Wordell, seeds and farming tools,	130.58	
Wood, Brightman & Co., pumps,	30.48	4,549.77
		<u>\$45,165.62</u>

CR.

By appropriation,	\$31,160.00	
Special appropriation,	11,500.00	
Cash receipts, as per Treasurer's report,	36.00	
Transfer to balance,	2,469.62	<u>\$45,165.62</u>

POOR DEPARTMENT—EMERGENCY FUND.

DR.

Pay rolls,		\$1,251.42
City Treasurer, cash orders,	\$1,555.31	
Evening Journal Co., printing,	9.55	
H. S. Hutchinson & Co., stationery,	1.75	
E. Williams, services and clerk hire,	98.00	
E. Williams, agent, cleaning office,	4.00	1,668.61
		<u>\$2,920.03</u>
To transfer to balance,		309.72
		<u>\$3,229.75</u>

CR.

By transfer from Highways and Streets,	\$3,189.49	
Cash receipts, as per Treasurer's report,	40.26	<u>\$3,229.75</u>

PRINTING, BINDING AND STATIONERY.

Dr.

A. R. Andrews,	\$4.50	
E. Anthony & Sons, Inc.,	84.40	
Boston Daily Advertiser,	113.00	
F. S. Brightman,	573.97	
C. C. Chamberlain,	12.50	
Commonwealth of Massachusetts,	27.08	
Edwin Dews,	434.29	
Evening Journal Co.,	2,555.73	
Frank A. Habicht,	24.98	
J. Hildreth & Co.,	1.00	
H. S. Hutteninson & Co.,	266.13	
Nathan Jenney,	1.00	
D. J. Kane & Bro.,	.75	
Lyon Platinum Pen Co.,	5.00	
W. T. R. Marvin,	5.00	
Mercury Publishing Co.,	979.03	
Henry Seibel & Bro.,	65.00	
C. R. Sherman & Son,	3.00	
Robert W. Taber,	110.37	\$5,266.53
To transfer to balance,		53.47
		<u>\$5,320.00</u>

Cr.

By appropriation,	<u>\$5,320.00</u>
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PUBLIC SCHOOLS—INCIDENTALS.

DR.

Salaries :

William E. Hatch, supt. and secretary,	\$3,057.69	
Emma M. Almy, clerk,	866.34	
George K. Dammon, messenger,	611.33	
George K. Dammon, truant officer,	204.05	
Henry Smith, truant officer,	815.38	\$5,554.79

Pay rolls :

Janitors,		11,651.95
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Books and stationery :

Allyn & Bacon,	142.61	
American Book Co.,	739.33	
Boston School Supply Co.,	270.00	
T. H. Castor & Co.,	8.08	
Edwin Dews,	3.29	
Ginn & Co.,	617.54	
D. C. Heath & Co.,	105.22	
Houghton, Mifflin & Co.,	59.50	
Leach, Shewell & Adams,	12.50	
Lee & Shepard,	15.00	
Maynard, Merrill & Co.,	18.40	
Thompson, Brown & Co.,	61.01	
William Ware & Co.,	245.84	2,298.32

Repairs of schoolhouses :

Alfred M. Brownell,	530.20
Ezra B. Chase,	54.31
George A. Cobb,	14.41
Collins & Bowie,	6.20
Loum H. Faunce,	54.66
Greene & Wood,	18.29
O. Haskins and Sons,	2.69
D. L. Hathaway & Son,	64.47
M. A. Hickey,	2.63
Jenney & Buflington,	5.62
Edwin Jones,	3.74
H. R. Lindsey,	1.50
W. A. Lowe,	3.85
William Maxfield & Son,	13.53

T. J. Moriarty,	69.44	
R. A. Sherman & Son,	550.12	
Nat. P. Sowle,	59.47	
William H. Walker,	15.86	
William R. West,	9.47	1,480.46
Repairs of heating apparatus :		
J. W. Clifton,	12.96	
T. J. Gifford & Co.,	2.20	
George E. Hatch,	50.61	
S. C. Lowe,	63.70	
N. B. Boiler & Machine Co.,	420.03	
S. A. Tripp,	332.09	
D. W. Wilson,	387.58	
Wood, Brightman & Co.,	.65	1,269.82
Supplies :		
Acushnet Coöperative Association,	6.39	
A. G. Alley, Jr.,	52.99	
Almy & Hitch,	16.27	
American Supply Co.,	1.00	
E. Anthony & Sons,	2.40	
Merton B. Ashley,	15.00	
James E. Blake,	.80	
Bliss & Nye,	30.10	
Briggs & Lawrence,	220.29	
Bobrick School Furniture Co.,	1,378.29	
Brownell & Co.,	27.35	
C. H. Brownell & Sons,	.50	
E. C. Brownell,	61.66	
T. S. Buck,	11.45	
Samuel Carpenter,	15.00	
Emma D. Caswell,	1.00	
Central Union Association,	4.50	
Mrs. Ezra B. Chace,	46.50	
F. W. Choate, agent,	674.62	
Lothrop Clark,	6.60	
Clasp Envelope Co.,	5.75	
George A. Cobb,	18.01	
Coffin Bros.,	2.00	
John Corish,	3.37	
C. S. & B. Cummings,	1.50	
George Delano's Sons,	5.40	
DeWolf & Vincent,	37.10	
Thomas Donaghy,	31.50	
F. M. Douglass,	28.12	
Eimer & Amend,	62.99	
W. T. Emery,	2.60	

Evening Journal Co.,	355.53	
Eberhard Faber,	105.02	
George E. Faisneau,	13.23	
N. E. Ford,	2.00	
Frost & Adams,	225.85	
J. L. Hammett,	28.48	
Haskell & Tripp,	43.23	
N. P. Hayes,	3.53	
Hillman, Washburn & Co.,	106.05	
Holden Patent Book Cover Co.,	249.56	
Albert W. Holmes,	547.47	
H. S. Hutchinson & Co.,	1,451.64	
P. P. Jenney & Son,	13.90	
H. H. Johnson & Co.,	.60	
S. C. Lowe,	16.25	
George G. McLean,	147.30	
Mercury Publishing Co.,	257.54	
Samuel E. Miller,	13.00	
W. C. O'Connor,	2.16	
Peirce Furnishing Co.,	4.08	
E. F. Penney,	.60	
George S. Perry & Co.,	666.35	
H. C. Perry,	1.75	
E. H. Pierce,	18.50	
Prang Educational Co.,	608.46	
Purrrington, Brown & Richards,	36.45	
George H. Richter & Co.,	8.03	
John A. Sawyer,	4.00	
Mortimer Searles,	4.60	
Sedgwick Co.,	27.50	
Sisson & Ring,	119.60	
Smith-Carleton Iron Co.,	8.74	
F. L. Sowle & Co.,	50.77	
A. G. Stanton,	1.44	
Robert W. Taber,	154.89	
H. J. Taylor & Son,	282.41	
Thorp & Martin Co.,	5.40	
Francis P. Washburn,	21.36	
A. P. White,	2.00	
E. B. Whiting & Co.,	3.91	
Charles F. Wing,	559.14	
James A. Wood,	14.91	
Edward E. Wright,	2.25	
John S. Wright,	1.70	8,962.23

Miscellaneous :

F. T. Akin & Co., paint and labor,	13.19
Edwin Allen, express,	3.30
Almy & Hitch, repairing flags,	2.48
American Bank Note Co., diplomas,	52.50
E. Anthony & Sons, Inc., advertising,	50.47
Robert Arnett, washing,	13.45
Isaac L. Ashley, hack hire,	6.50
Mary I. Ashley, paid for cleaning,	13.00
George Bailey, labor,	120.00
William A. Baker, washing,	50.88
E. F. Baudoin, extra services,	12.50
John B. Baylies, book cases,	30.00
Fred A. Bebout, repairing chairs,	3.45
George C. Bliss, gardening,	10.55
E. Boden, Jr., music rack,	1.00
Z. E. Booth, services,	10.00
Briggs & Lawrence,	12.42
Manuel Brown, labor,	15.75
P. Black, rope and labor,	2.50
Samuel H. Cook & Co., insurance,	400.00
Charles H. Cregon, reeving halyards,	2.00
George K. Dammon, washing,	18.10
C. Dantsizen, repairing lounge,	9.00
H. G. Dennis, rent,	499.99
F. C. Eldridge, services,	8.40
Evening Journal Co,	44.61
Fichtenmeyer & Flynn, fitting table,	26.40
First Primitive Methodist church, rent,	275.00
N. E. Ford, use of chairs,	16.00
Freetown, tuition non-residents,	25.00
C. A. Galligan,	22.00
Elizabeth Gibbs, services,	13.55
C. A. Gray, freight and carting,	122.10
T. M. Hart & Co., repairing flags,	3.46
E. S. Haskell, floral design,	15.00
H. K. Haskins, fitting board,	13.25
O. Haskins & Sons, fitting desks,	11.56
A. B. Hathaway, floral design,	11.00
George B. Hathaway, filling diplomas,	20.00
Hatch & Co., express,	30.00
William E. Hatch, office expenses,	70.90
James B. Hazzard, blackboard,	3.52
James T. Heron, washing,	5.32

William P. Hood and Clarence R. Sherman.	
assignees, rent,	59.17
P. P. Jenney & Son, labor on lock,	.55
W. A. Jennings, carting,	228.74
D. J. Kane & Bro., binding,	96.64
Charles F. Keen, repairing furniture,	13.75
William L. Kelley, repairing clock,	2.75
Kern & Wright, fitting music rack,	1.75
S. C. Lowe, labor on lock,	.35
J. Roland Macy, soap,	.62
Magnett & Allen, labor,	12.00
H. M. Maine, beating carpets,	22.14
S. G. Mandell, fitting keys, locks and bat- teries,	77.55
John Marble, washing,	1.92
Mercury Publishing Co., advertising,	37.63
Antone J. Midieros, repairing furniture,	580.91
Charles S. Moore, postage,	4.30
A. G. Moulton, carting,	.50
N. B. Gas and Edison Light Co., lighting and repairs,	840.79
N. B. Ice Co., ice,	3.60
Sarah D. Ottiwell, services,	180.00
S. S. Paine & Bro., ground bone,	5.05
S. H. Peckham, labor,	9.74
Henry T. Phillips, repairing furniture,	194.60
Pierce & Bushnell Mfg. Co.,	4.25
A. P. Pope, labor,	7.83
F. O. Pollock, washing,	21.69
Abbie T. Potter, piano cover,	5.00
F. H. Sargent, plating,	4.60
S. H. Shepard, car fare,	1.20
C. R. Sherman & Son, fitting bells and locks,	18.85
William H. Sherman, hack hire,	14.00
William E. Smith, cleaning piano cover,	1.50
So. Mass. Telephone Co., telephones,	128.00
D. J. Sullivan, clocks,	98.50
John Sylvia, labor,	10.58
Abram Taber, picture and frame,	12.00
Edwin S. Tallman, washing,	5.20
Charles A. V. Terry, paid for cleaning,	4.20
S. A. Tripp, fitting table,	43.26

F. B. Wade, services,	55.00	
A. P. White, washing,	1.20	
A. G. Wilbor, clocks and repairing,	23.25	
S. S. Wilbur, cleaning vaults,	34.42	4,959.68
		<u>\$36,177.25</u>
To transfer to balance,		360.32
		<u>\$36,537.57</u>

CR.

By appropriation,	\$22,420.00	
Special appropriation,	14,100.00	
Cash receipts, as per Treasurer's report,	17.57	\$36,537.57

PUBLIC SCHOOLS—PAY OF TEACHERS.

DR.

HIGH SCHOOL.

Charles S. Moore,	\$2,741.00	
Charles T. Bonney, Jr.,	1,600.00	
Charles R. Allen,	1,600.00	
Sarah D. Ottiwell,	900.00	
Elizabeth P. Briggs,	897.00	
Lydia J. Cranston,	900.00	
Mary E. Austin,	900.00	
Lucretia N. Smith,	900.00	
Emma K. Shaw,	900.00	
Helen L. Hadley,	817.60	
Mabel W. Cleveland,	820.00	
Katharine M. Crabtree,	740.00	
Edmand E. Baudoin,	187.50	\$13,903.10

GRAMMAR SCHOOLS.

Fifth Street :

Allen F. Wood,	\$1,900.00	
Mary A. Kane,	600.00	
Sarah E. Stoddard,	587.00	
Mary E. Allen,	599.00	
Lydia A. Macreading,	600.00	
Janet Hunter,	178.00	
Emma A. McAfee,	600.00	
Harriet F. Hart,	65.00	
Nancy H. Brooks,	352.00	
Blanche W. Sheldon,	345.00	
Grace L. Carver,	570.00	
Emma B. McCullough,	486.50	
Mary W. Leymunion,	238.00	
Lottie M. Allen,	190.12	
Annie C. Hart,	216.00	7,526.62

Middle Street :

George H. Tripp,	1,900.00	
Katharine Commerford,	590.00	
Agnes J. Dunlap,	600.00	
Clara S. Vincent,	588.00	
Lucy B. Fish,	590.00	
Clara B. Watson,	240.00	
Helen McCoy,	484.00	
Etta M. Abbott,	600.00	
Helen Ring,	600.00	
Julia C. Gifford,	485.00	
Emma A. Gilman,	180.00	
Lucy F. Winchester,	223.50	7,080.50

Parker Street :

Francis J. Heavens,	1,900.00	
Martha A. Hemenway,	592.00	
Anna L. Jennings,	599.00	
Mary E. Sturtevant,	580.00	
May L. Pettey,	420.00	
Mariana N. Richmond,	600.00	
Elizabeth B. Brightman,	582.00	
Emily A. Delano,	598.00	
Susan H. Lane,	600.00	
Emma D. Larrabee,	596.00	
Regina M. Paul,	518.00	
Agnes W. Lindsey,	358.00	

N. Emma Slack,	35.00	
Angenette Chace,	192.50	
Julia F. Coombs,	163.50	8,334.00

Thompson Street :

Katharine N. Lapham,	1,170.00	
Mary A. Macy,	600.00	
Lena B. Hamblen,	550.00	
Annie L. Brownell,	516.80	
Daisy M. Butts,	513.00	
Cora B. Cleveland,	520.00	
Lizzie M. Briggs,	456.92	
Angela F. Bowie,	160.00	4,486.72

PRIMARY SCHOOLS.

Acushnet Avenue :

Jane C. Thompson,	701.00	
Hattie L. Finlan,	506.00	
Carrie S. Silva,	549.20	
Elizabeth Bennett,	152.30	
Margaret H. Holmes,	454.00	
Harriet N. Hyatt,	105.84	
Julia M. Pilling,	271.20	
Harriett L. Cornell,	184.12	
Annie M. King,	353.30	
Caroline O. Peirce,	384.20	
Nellie A. Walker,	192.50	
Sarah A. Winslow,	13.75	3,867.41

I. W. Benjamin :

Jane E. Gilmore,	800.00	
Susan M. Tompkins,	549.20	
Annie C. O'Connor,	550.00	
Sarah E. Kirwin,	550.00	
Nellie W. Davis,	550.00	
Sarah A. Winslow,	535.45	
Alice A. Taylor,	520.00	
Mabel Bennett,	447.60	
Eleanor V. Tripp,	466.80	
Charlotte M. Allen,	254.08	
Dora A. DeWolf,	435.00	
Julia A. Hunt,	410.00	
Emma L. Gartland,	386.15	
Marion H. Swasey,	139.24	6,593.52

Cedar Street :

Annie S. Homer,	650.00	
Abby D. Whitney,	539.25	
Bessie P. Peirce,	542.00	
Willetta B. Nickerson,	545.20	
Annie L. Edwards,	550.00	
Mabel L. Hathaway,	468.40	3,294.85

Cedar Grove Street :

Maria B. Clark,	765.63	
Mary J. Eldridge,	549.20	
Carrie A. Shaw,	307.45	
Flora E. Estes,	546.00	
Annie G. Brawley,	550.00	
Edith K. Weeden,	511.20	
Julia W. Corish,	169.28	
Kate Sweet,	536.66	
Ruth E. Pease,	432.60	
Caroline E. Bonney,	422.50	
Isabella F. Winslow,	550.00	
A. Gertrude Wheaton,	180.00	
Lizzie E. Omey,	600.00	
Alice A. Richardson,	417.18	
Elizabeth S. Foster,	167.75	
Florence A. Chaffin,	146.20	6,851.65

Cannonville :

Adelaide J. McFarlin,	550.00	
Ethel W. Denham,	169.92	
Florence A. Poole,	170.00	889.92

Dartmouth Street :

Isadore F. Eldridge,	700.00	
M. Eva Schwall,	550.00	
Sara H. Kelley,	451.15	
Grace H. Potter,	550.00	
Mary C. Barstow,	294.50	
Annie F. Smith,	457.75	
Edith M. B. Taber,	470.00	
Nellie H. Cook,	469.20	
Sarah E. Slade,	160.00	4,102.60

Thomas A. Greene :

Sarah H. Cranston,	650.00	
Eliza H. Sanford,	547.60	
Sarah E. Sears,	544.75	
Lillie C. Tillinghast,	550.00	
Annie L. Macreading,	550.00	
Grace Covell,	458.00	3,300.35

Sylvia Ann Howland :

Carrie E. Footman,	592.00	
Amelia Lincoln,	550.00	
Mary J. Graham,	550.00	
Helen J. Kirk,	545.20	
Angela F. Bowie,	112.00	2,349.20

Linden Street :

Elizabeth P. Spooner,	600.00	
Lucy S. Leach,	307.45	
Isabella Luscomb,	550.00	
Ruth M. Tripp,	410.00	
Carrie L. Chapman,	468.40	2,335.85

Merrimac Street :

Sarah H. Hewins,	600.00	
Addie West,	529.62	
Harriet S. Damon,	550.00	
Annie I. Dexter,	550.00	2,229.62

Maxfield Street :

Mary B. White,	600.00	
Annie E. Pearce,	550.00	
Clara C. M. Gage,	550.00	
Mary E. Pasho,	512.00	2,212.00

HARRINGTON TRAINING SCHOOL.

Josephine B. Stuart,	1,462.50
Anna W. Braley,	1,000.00
Belle Almy,	465.20
Fannie M. Spooner,	435.00
Julia W. Corish,	257.22
Kate Moore,	443.68
Grace W. Russell,	407.60
Florence A. Poole,	238.40
Angela F. Bowie,	16.80
Marion H. Swasey,	212.96
Sarah E. Slade,	85.60
Sophie T. Anthony,	99.00
Lucia E. Bliss,	99.70
Elizabeth D. Hicks,	103.60
Ruth E. Howland,	100.50
Laura C. McCabe,	108.20
Sarah Peckham,	94.10
Harriet A. Taylor,	103.60
Lila D. Haney,	91.10
Adeline A. Gardner,	39.00

Gillian M. Gordon,	45.00	
Charlotte M. Murkland,	38.10	
Esther W. Paul,	45.30	
Mary L. Rogers,	37.70	
Ruth E. Wilde,	42.60	6,072.46

UNGRADED SCHOOLS.

North Mill:

Emma R. Wentworth,	635.50	
Mary L. Hillman,	420.00	1,055.50

South Mill:

Lucy S. Remington,	594.50	
Ruby M. Tripp,	409.00	1,003.50

Acushnet:

Charlotte C. Carr,	700.00	
Belle B. Wheeler,	600.00	
Caroline O. Peirce,	165.00	
Harriet N. Hyatt,	307.56	1,772.56

Clark's Point:

Mary E. McAuliffe,		470.00
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North:

Mary I. Ashley,	600.00	
Edith Cobb,	75.20	
May H. Fyler,	8.00	
Mary G. Fuller,	252.00	935.20

Plainville:

Mary E. Haney,		585.00
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Rockdale:

Lillian T. Thomas,	502.58	
May H. Fyler,	48.00	550.58

SPECIAL TEACHERS.

F. H. Butterfield,	1,620.00	
Mary W. Gilbert,	1,200.00	
Edwin R. King,	480.00	
Grace Greenwood,	600.00	
Carrie H. Richmond,	598.69	
Gertrude H. Leonard,	483.83	
Eliza A. Smalley,	377.68	5,360.20

EVENING SCHOOLS.

Fifth Street :

Francis J. Heavens,	24.00	
George H. Tripp,	72.00	
Mrs. C. T. Johnson,	45.00	
Grace H. Potter,	48.00	
Lillie C. Tillinghast,	48.00	
Clara B. Watson,	12.00	
Alice A. Taylor,	12.00	
Kate Moore,	48.00	
Nellie H. Cook,	48.00	
Annie C. Hart,	12.00	
Mary J. Graham,	48.00	
Sarah E. Stoddard,	46.50	
Lizzie M. Briggs,	45.00	
Julia C. Gifford,	45.00	
Annie L. Burbank,	48.00	
Ida A. McAfee,	36.00	
Ruth E. Howland,	36.00	
Marion H. Swasey,	27.00	
Gillian M. Gordon,	36.00	
Ruth M. Tripp,	9.00	
Agnes J. Dunlap,	3.00	
Cora Cleveland,	3.00	751.50

Merrimac Street :

Mary A. Kane,	96.00	
Alice A. Richardson,	6.00	
Harriet L. Cornell,	48.00	
Mabel L. Hathaway,	12.00	
Sarah E. Kirwin,	48.00	
Florence A. Poole,	48.00	
Charlotte M. Allen,	13.50	
Helen McCoy,	6.00	
Margaret H. Holmes,	36.00	
Ruth Pease,	34.50	
Lila D. Haney,	34.50	
Susan E. Butts,	28.50	411.00

Parker Street :

George H. Tripp,	24.00
Emma R. Wentworth,	81.00
Maria B. Clark,	12.00
Mary F. Wilde,	48.00
Julia W. Corish,	48.00

Sara L. Tallman,	48.00	
Emma D. Larrabee,	33.00	
Regina M. Paul,	36.00	
Esther M. Paul,	36.00	366.00

Cedar Grove Street :

Allen F. Wood,	39.00	
Francis J. Heavens,	72.00	
Zenas M. Briggs,	10.50	
Annie G. Brawley,	46.50	
Nannie P. Slocum,	55.50	
Emma B. McCullough,	18.00	
Grace L. Carver,	13.50	
Mary R. Hineckley,	55.50	
Dora A. DeWolf,	46.50	
Flora E. Estes,	43.50	
Robert E. Washburn,	10.50	
Emma A. McAfee,	13.50	
Cora G. Bingley,	9.00	
Mary E. McAuliffe,	45.00	
Elizabeth D. Hicks,	9.00	
Abby R. Johnson,	45.00	
Lucia E. Bliss,	45.00	
Myron S. Ashley,	46.50	
Anna I. Hathaway,	52.50	
Grace L. Bates,	15.00	
Blanche W. Sheldon,	6.00	
Helen McCoy,	36.00	
Lillie McAfee,	36.00	
Ruth A. Wilde,	36.00	
Jennie Gardner,	36.00	
Sarah Peckham,	34.50	
E. Laycock,	33.00	909.00

Thompson Street :

Joseph P. Kennedy	96.00
Kate K. Whelden,	48.00
Janet Hunter,	48.00
Emma L. Gartland,	48.00
Annie M. King,	48.00
Helen Ring,	45.00
Marion H. Swasey,	10.50
Kate E. Kirwin,	12.00
Annie Murphy,	12.00
Belle Almy,	46.50
Agnes J. Dunlap,	1.50

Ruth M. Tripp,	3.00	
Julia A. Hunt,	1.50	
Fannie Spooner,	36.00	
Sophie T. Anthony,	36.00	
Mary L. Rogers,	30.00	522.00
Drawing :		
George H. Nye,	144.00	
George A. Stetson,	112.00	
Katharine M. Crabtree,	96.00	
Frank C. Taylor,	18.00	
Oliver Gardner,	48.00	418.00
SUBSTITUTES.		
Sophie T. Anthony,	33.60	
Angela F. Bowie,	28.80	
Annie L. Burbank,	305.60	
Elizabeth Bennett,	289.25	
Lucia E. Bliss,	44.00	
Harriet L. Cornell,	247.68	
Grace Covell,	8.00	
Hattie L. Finlan,	44.00	
Adaline A. Gardner,	16.40	
Mary R. Hinckley,	180.00	
Elizabeth D. Hicks,	39.60	
Janet Hunter,	22.00	
Harriet N. Hyatt,	21.60	
Lila D. Haney,	58.40	
Ruth E. Howland,	35.80	
Annie M. King,	65.53	
Emma B. McCullough,	24.00	
Charlotte M. Murkland,	11.20	
Laura C. McCabe,	28.80	
Julia M. Pilling,	163.80	
Esther W. Paul,	2.00	
Sarah Peckham,	53.42	
Mary L. Rogers,	.80	
Mabel A. Spooner,	7.00	
Marion H. Swasey,	2.40	
Eliza H. Sanford,	1.60	
Harriet A. Taylor,	41.60	
Jane C. Thompson,	19.00	
Ruth A. Wilde,	3.20	1,799.08
		\$102,339.49
To transfer to balance,		1,140.51
		\$103,480.00

CR.

By appropriation,	\$74,480.00	
Special appropriation,	29,000.00	\$103,480.00

PUBLIC SCHOOLS—REPAIRS OF BUILDINGS.

DR.

Acushnet:		
S. C. Lowe,	\$36.51	
William R. West,	169.20	\$205.71
Acushnet Avenue:		
T. J. Moriarty,	2.10	
E. F. Penney,	2.21	4.31
Benjamin:		
M. A. Hickey,	13.38	
E. F. Penney,	5.20	18.58
Cannonville:		
J. W. Clifton,	9.90	
D. L. Hathaway,	52.86	
D. W. Holmes,	2.08	
Kern & Wright,	22.95	87.79
Cedar Street:		
Highways and Streets,	.35	
George E. Hatch,	1.50	
James B. Hazzard,	8.21	
D. W. Holmes,	13.30	
B. F. Lewis,	201.72	
John Marble,	3.85	
P. R. Swift,	38.21	267.14
Cedar Grove Street:		
D. H. Cook,	58.52	
Loum H. Faunce,	244.98	
S. C. Lowe,	84.25	
T. E. Mahoney,	3.40	
William R. West,	46.79	437.94

Clark's Point :

George Dobson,	7.25	
M. A. Hickey,	136.20	
B. McGurk,	326.75	470.20

Dartmouth Street :

J. L. Ballou,	35.02	
Herman Karcher,	5.60	
Antone Madeiros,	58.30	
Magnett & Allen,	27.00	
E. F. Penney,	13.83	
William H. Walker,	4.96	
Wood, Brightman & Co.,	17.40	162.11

Fifth Street :

James R. Denham, 2d,	4.75	
P. P. Jenney & Son,	23.58	
Jenney & Buffington,	44.48	
Herman Karcher,	151.78	
Magnett & Allen,	24.00	
James H. Sherman,	21.11	
R. A. Sherman & Son,	29.21	298.91

Harrington :

J. W. Clifton,	64.45	
Highways and Streets,	75.14	
D. L. Hathaway & Son,	58.61	
D. W. Holmes,	3.84	
James Loughlin,	4.35	
William Maxfield & Son,	15.33	
Kern & Wright,	164.78	
William R. West,	2.00	388.50

High :

DeWolf & Vincent,	4.05	
R. T. Durfey,	8.10	
Greene & Wood,	18.52	
B. F. Lewis,	76.33	
Llewellyn Lloyd,	260.00	
J. L. G. Mason,	5.52	
William Peirce,	5.75	
A. P. Pope,	74.19	
Wood, Brightman & Co.,	32.52	
F. L. Sowle & Co.,	3.25	488.23

Howland :

Herbert M. Atwood,	1.85	
William A. Baker,	3.50	
Peter Black,	9.18	

George Brennan,	75.00	
Thomas J. Gifford & Co.	30.01	
Kern & Wright,	6.05	
William A. Kirby,	4.55	
R. A. Sherman & Son,	38.32	
F. L. Sowle & Co.,	22.80	191.26
Linden Street :		
Edwin Jones,	1.46	
William A. Lowe,	20.75	
S. C. Lowe,	2.93	
William R. West,	4.82	29.96
Madison Street :		
J. L. G. Mason,	2.40	
William Maxfield & Son,	5.46	
R. A. Sherman & Son,	382.41	390.27
Maxfield Street :		
Highways and Streets :	.50	
O. Haskins & Sons,	105.37	
George E. Hatch,	177.49	
James B. Hazzard,	6.70	
D. W. Holmes,	77.15	
P. P. Jenney & Son,	6.22	
Perkins & Chase	32.40	405.83
Merrimac Street :		
John H. Ennis,	100.00	
Highways and Streets,	6.65	
S. C. Lowe,	35.25	
W. A. Lowe,	66.63	
J. Z. Payan,	15.85	
Perkins & Chase,	90.00	
William R. West,	3.35	317.73
Middle Street :		
James B. Hazzard,	3.18	
B. F. Lewis,	41.08	
N. B. Monumental Works,	15.00	
William Peirce,	2.00	
George S. Perry & Co.,	74.74	
A. P. Pope,	75.55	
Nathan Wheaton,	57.83	
Wood, Brightman & Co.,	29.42	298.80
North :		
Mary I. Ashley,	7.00	
Elmore P. Haskins,	6.00	

James B. Hazzard,	13.83	
Isaac Reed,	9.79	
Wood, Brightman & Co.,	11.97	48.59
Parker Street :		
H. K. Haskins,	6.29	
O. Haskins & Sons,	146.44	
George E. Hatch,	39.50	
Charles Thompson,	104.46	296.69
Plainville :		
George S. Perry & Co.,	27.12	
A. P. Pope,	30.81	
Wood, Brightman & Co.,	21.14	79.07
Rockdale :		
D. L. Hathaway & Son,		14.47
Thompson Street :		
Highways and Streets,	2.90	
M. A. Hickey,	5.35	
John Marland,	20.00	
William Maxfield & Son,	55.64	
E. F. Penney,	12.65	
R. A. Sherman & Son,	45.49	
Wood, Brightman & Co.,	96.43	238.46
		<u>\$5,140.55</u>
To transfer to balance,		499.45
		<u>\$5,640.00</u>

CR.

By appropriation,	\$4,940.00	
Special appropriation,	700.00	\$5,640.00

PUBLIC SCHOOLS—DOG FUND.

DR.

Luke Allen,	\$62.50	
Bliss & Nye,	10.25	
Emma D. Caswell,	107.00	
Chemical Hand Fire Extinguisher Co.,	125.00	
M. E. Donovan,	2.24	
George Eggers,	33.47	
Elizabeth Gibbs,	1.60	
Haskell & Tripp,	14.90	
W. E. Hatch,	250.00	
Hillman, Washburn & Co.,	81.00	
H. S. Hutchinson & Co.,	.90	
Samuel Miller,	62.50	
George S. Perry & Co.,	18.21	
H. T. Phillips,	100.00	
Purrington, Brown & Richards,	13.60	
Allen Smith, Jr.,	28.50	
George F. Weeden,	50.00	
A. P. White,	50.00	\$1,011.67
January 7, 1895. To balance,		3,632.20
		<u>\$4,643.87</u>

CR.

January 1, 1894. By balance,	\$3,306.28	
By cash receipts, as per Treasurer's report,	1,337.59	\$4,643.87

CR.

January 7, 1895. By balance,	<u>\$3,632.20</u>
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PUBLIC SCHOOLS—FUEL.

DR.

Mary I. Ashley,	\$3.00	
Merton B. Ashley,	161.08	
S. G. Barnum,	18.00	
H. T. Borden,	2.00	
T. S. Corson,	1,877.99	
Hart & Akin,	13.65	
Albert W. Holmes,	4,216.34	
John Notter,	12.25	
John N. O'Brien,	18.00	
Leroy G. Tripp,	5.00	
John A. Russell,	9.12	\$6,336.43
To transfer to balance,		323.57
		<u>\$6,660.00</u>

CR.

By appropriation,	\$4,560.00	
Special appropriation,	2,100.00	\$6,660.00
	<u> </u>	<u> </u>

PUBLIC SCHOOLS—COOKING SCHOOL.

DR.

A. G. Alley, Jr.,	\$14.55	
E. C. Brownell,	14.96	
W. A. Baker,	1.40	
T. S. Corson,	6.50	
N. B. Gas and Edison Light Co.,	1.49	\$38.90
	<u> </u>	<u> </u>

CR.

January 1, 1894. By balance,	<u> </u>	<u>\$38.90</u>
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PUBLIC SCHOOLS—MANUAL TRAINING SCHOOL.

DR.

W. A. Baker,	\$5.90	
Chandler & Barber,	300.00	
DeWolf & Vincent,	333.37	
Evening Journal Co.,	5.00	
Goodnow & Wightman,	12.50	
C. A. Gray,	2.26	
Hatch & Co.,	.55	
Edwin R. King,	1.20	
George S. Perry & Co.,	24.39	
R. A. Sherman & Son,	14.16	
Nat P. Sowle,	42.54	
Robert W. Taber,	.72	
C. G. Thompson,	8.25	
William H. Washburn,	2.13	\$752.97
January 7, 1895. To balance,		235.46
		<hr/> \$988.43

CR.

January 1, 1894. By balance,	<hr/> \$988.43
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CR.

January 7, 1895. By balance,	<hr/> \$235.46
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REAL ESTATE TAX ACCOUNT.

DR.

January 1, 1894. By balance,	\$682.94	
Collector of Taxes,	1,235.13	\$1,918.07
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CR.

By cash receipts, as per Treasurer's report,	\$641.99	
January 7, 1895. By balance,	1,276.08	\$1,918.07

DR.

January 7, 1895. To balance,	\$1,276.08
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REPAIRS OF CITY PROPERTY.

DR.

Alms-house :

W. D. Blanchard,	\$2,652.00	
Thomas W. Croacher,	34.27	
Greene & Wood,	113.65	
C. Hammond & Son,	66.50	
N. P. Hayes,	16.46	
M. A. Hickey,	550.95	
Highways and Streets,	136.73	
Joseph H. Mayo,	64.36	
R. A. Sherman & Son,	1,036.83	
Martin H. Sullivan,	163.56	
S. A. Tripp,	165.23	
Joseph C. Warren,	122.42	
William R. West,	46.03	
D. W. Wilson,	4,570.03	\$9,739.02

Cemetery Commission :

A. P. Pope,	28.76	
F. R. Slocum,	134.95	163.71

City Hall :

F. T. Akin & Co.,	.90	
J. L. Ballou,	6.55	
C. O. Brightman,	4.77	
Jenney & Buffington,	16.41	
Kern & Wright,	3.30	
Mrs. Laughlin,	6.00	
S. C. Lowe,	111.18	

Mrs. McClusky,	6.00	
N. B. Gas and Edison Light Co.,	1.33	
E. F. Penney,	1.80	
A. P. Pope,	61.20	
F. R. Slocum,	16.00	
Daniel W. Snow,	1.10	
Wood, Brightman & Co.,	17.88	254.42
City wood and coal yard :		
F. W. Hammond,		5.83
Engine houses :		
D. H. Cook,	296.79	
Highways and Streets,	34.64	
S. S. Paine & Bro.,	.40	
C. S. Paisler,	42.52	
Sewers, general,	15.98	
J. H. Sherman,	255.64	
J. B. Sullivan,	990.43	
Martin H. Sullivan,	202.50	1,838.90
Library building :		
J. L. Ballou,	2.11	
C. O. Brightman,	312.00	
Briggs & Lawrence,	23.50	
George Brennan,	81.16	
S. C. Lowe,	2.93	
N. B. Gas and Edison Light Co.,	43.60	
N. B. Boiler and Machine Co.,	9.90	
Samuel Other,	7.70	
Perkins & Chase,	69.90	
A. P. Pope,	144.77	
F. L. Sowle & Co.,	1.20	
William R. West,	51.43	
D. W. Wilson,	1.10	
Charles F. Wing,	31.94	
Wood, Brightman & Co.,	47.67	830.91
License Commission :		
Briggs & Lawrence,	43.90	
C. D. O. Russell,	3.50	
Martin H. Sullivan,	73.21	
H. J. Taylor & Son,	4.24	
William R. West,	7.35	
Charles F. Wing,	50.00	182.20
N. B. City Guards' armory :		
Thomas J. Gifford & Co.,		10.70

Police stations :

S. C. Lowe,	87.95	
N. B. Boiler and Machine Co.,	8.55	
N. B. Gas and Edison Light Co.,	4.06	
E. F. Penney,	45.00	
C. G. & G. A. Randall,	8.83	
John B. Sullivan,	86.65	
Martin H. Sullivan,	59.45	
E. & K. C. Terry,	1.31	
D. W. Wilson,	38.63	340.43

Schoolhouses :

Gorham Manufacturing Co.,	240.00	
Highways and Streets,	12.40	252.40

Veteran Firemen's Association building :

Coggeshall, Maxfield & Co.,	18.24	
H. F. Hammond,	11.05	29.29

Ward rooms :

F. T. Akin & Co.,	1.75	
N. E. Ford,	3.90	
George E. Hatch,	3.30	
John Murphy,	9.93	
E. F. Penney,	.75	
Charles H. Russell,	6.71	
George W. Sisson	5.95	32.29

Miscellaneous :

E. Anthony & Sons, Inc., advertising,	16.31	
Briggs & Lawrence, repairing chairs, etc,	86.29	
City Treasurer, expenses of committee,	40.10	
Edwin Dews, fire extinguishers,	133.20	
Evening Journal Co., advertising,	16.09	
John A. Gomley, teaming,	47.45	
Charles A. Gray, freight and carting,	.97	
T. M. Hart & Co., repairing flag,	1.25	
N. P. Hayes, hose,	16.00	
Highways and Streets, moving snow,	60.79	
P. P. Jenney & Son, sharpening mower,	1.25	
H. M. Maine, beating carpets,	2.06	
Mercury Publishing Co., advertising,	11.10	
Edmund O'Keefe, expenses,	30.00	
E. J. Parker, table cover,	5.25	
E. H. Pierce, hose,	9.00	
Arthur E. Perry, expenses of committee,	34.07	

E. G. Reynolds, hack hire,	15.00	
F. R. Slocum, chair and desk,	42.65	
Martin H. Sullivan, repairing band stands,	13.90	582.73
		<u>\$14,262.83</u>

CR.

By appropriation,	\$3,040.00	
Special appropriation,	5,700.00	
Transfers from unappropriated funds,	1,800.00	
Transfer to balance,	3,722.83	\$14,262.83

ACUSHNET AVENUE SCHOOLHOUSE ADDITION.

DR.

Alfred M. Brownell,	\$10,846.22	
David Duff & Son,	23.00	
Highways and Streets,	436.81	
Llewellyn Lloyd,	46.94	
E. F. Penney,	452.63	
Charles S. Paisler,	85.16	
R. A. Sherman & Son,	105.04	
John B. Sullivan,	1,045.19	\$13,040.99

CR.

January 1, 1894. By balance,	\$10,040.00	
Special appropriation,	2,895.60	
Transfer to balance,	105.39	\$13,040.99

ACUSHNET AVENUE SCHOOLHOUSE ADDI- TION — HEATING.

DR.

S. C. Hunt,	\$158.37	
Smead Warming and Ventilating Co.,	1,660.00	
George H. Underhill, lessee,	2,000.00	
To balance,	706.63	\$4,525.00

CR.

January 1, 1894. By balance,	\$4,525.00
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CR.

January 7, 1895. By Balance,	\$706.63
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CENTRAL POLICE STATION.

DR.

E. Anthony & Sons, Inc.,	\$2.80	
Z. B. Davis,	2,894.49	
S. C. Hunt,	100.00	
Mercury Publishing Co.,	3.33	
N. B. Gas and Edison Light Co.,	119.46	
D. W. Wilson,	173.04	\$3,293.12

CR.

By special appropriation,	\$2,700.00	
Transfer to balance,	593.12	\$3,293.12

ENGINE HOUSE, ACUSHNET AVENUE AND
DAVIS STREET.

DR.

P. Black,	\$23.71	
William S. Brown,	102.00	
Corns. Callahan Co.,	530.00	
T. S. Corson,	5.50	
David Duff & Son,	16.25	
Charles A. Gray,	3.72	
John Gurry,	8.00	
C. Hammond & Son,	788.50	
George E. Hatch,	25.00	
Highways and Streets,	868.59	
Lloyd Bros.,	5.00	
Municipal Fire and Police Telegraph Co.,	175.00	
John B. Sullivan,	8,929.53	
William E. Tanner,	15.00	
William R. West,	45.00	
D. W. Wilson,	6.25	
Wood, Brightman & Co.,	32.36	\$11,579.41

CR.

January 1, 1894. By balance,	\$8,598.20	
By Special appropriations,	1,231.12	
Transfer to balance,	1,750.09	\$11,579.41

ENGINE HOUSE, ACUSHNET AVENUE AND
DAVIS STREET—HEATING.

DR.

D. W. Wilson,	\$1,018.78	
To transfer to balance,	31.22	\$1,050.00

CR.

January 1, 1894. By balance,		\$1,050.00
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SCHOOLHOUSE LOT, CLARK STREET.

DR.

E. T. Ryan and Z. W. Peterson,	\$6,000.00
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CR.

By Special appropriation,	\$6,000.00
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SCHOOLHOUSE, FOURTH AND MADISON
STREETS.

DR.

Charles O. Brightman,	\$30,369.16	
T. S. Corson,	139.62	
Highways and Streets,	238.79	
T. E. Mahoney,	1,078.85	
Charles S. Paisler,	29.83	
A. A. Sauborn,	167.00	
R. A. Sherman & Son,	137.62	
Nat. C. Smith,	802.09	
John B. Sullivan,	712.69	\$33,675.65

CR.

January 1, 1894. By balance,	\$26,007.35	
Special appropriation,	7,639.57	
Transfer to balance,	28.73	\$33,675.65

SCHOOLHOUSE, FOURTH AND MADISON STREETS — HEATING.

Dr.

A. A. Sanborn,		\$3,800.00	
January 7, 1895.	To balance,	800.00	\$4,600.00

Cr.

January 1, 1894.	By balance,		\$4,600.00
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Cr.

January 7, 1895.	By balance,		\$800.00
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WARD ROOM, WARD THREE, PRECINCT FIVE.

Dr.

To Charles F. Wing,		\$75.00	
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Cr.

January 1, 1894.	By balance,		\$75.00
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SALARIES.

Dr.

Stephen A. Brownell, Mayor,	\$2,000.00
James H. Hathaway, City Treasurer and Col- lector,	2,643.33
Daniel B. Leonard, City Clerk,	2,243.33
William S. Cook, Assistant City Clerk,	711.67

George W. Parker, City Auditor,	1,270.70	
Walter Clifford, City Solicitor,	198.08	
Thomas F. Desmond, City Solicitor,	513.59	
James H. Pease, Sealer of Weights and Measures,	109.00	
Charles H. Wood, Sealer of Weights and Measures,	262.00	
Charles D. Tuell, Assessor,	1,016.67	
John A. Ruggles, Assessor,	762.50	
William A. Russell, Assessor,	187.50	
George E. Briggs, Assessor,	575.00	
William A. Mackie, Clerk of Common Council,	300.00	
Augustus D. Piper, City Messenger,	813.33	
George W. Howland, Bell Ringer,	127.08	
Charles E. Woodworth, Supt. City Clock,	76.25	
Henry F. West, Harbor Master,	254.17	
Dr. D. C. Ashley, Inspector of Meat, Milk, Provisions and Cattle,	1,016.67	
Edmund O'Keefe, Inspector of Buildings,	1,625.00	
D. D. Briggs, Supervisor of Wires,	305.00	
Dr. William N. Swift, Board of Health,	405.68	
Nath. Hathaway, Board of Health,	405.68	
T. W. Cook, Board of Health,	43.10	
William G. Kirschbaum, Board of Health,	216.48	
Emanuel Sullayou, Board of Registrars,	406.67	
Charles J. McGurk, Board of Registrars,	65.60	
Willard N. Lane, Board of Registrars,	406.67	
John A. Gomley, Board of Registrars,	259.41	
Daniel B. Leonard, Board of Registrars,	305.00	
George F. Brightman, Board of Aldermen,	100.00	
Henry C. Hathaway, Board of Aldermen,	100.00	
Frank C. Barrows, Board of Aldermen,	100.00	
Arthur E. Perry, Board of Aldermen,	100.00	
Isaac L. Ashley, Board of Aldermen,	100.00	
William H. Rankin, Board of Alderman,	100.00	
Rufus A. Soule, License Commission,	59.87	
John D. Bannister, License Commission,	59.87	
Stephen D. Pierce, License Commission,	59.87	\$20,304.77

CR.

By appropriation,	\$18,715.00	
Transfer to balance,	1,589.77	\$20,304.77

SEWERS—GENERAL ACCOUNT.

Dr.

Pay rolls,	\$3,984.23
Isaac L. Ashley,	4.50
Babbitt, Wood & Co.,	10.22
Bliss & Nye,	3.75
Bowker & Tripp,	1.00
Brightman Bros.,	1.20
Buchell Shoe House,	30.50
Carson Trench Machine Co.,	2,000.00
T. S. Corson,	9.00
C. S. & B. Cummings,	8.25
C. F. Cushing,	13.50
F. E. Delano,	1.90
DeWolf & Vincent,	45.55
A. B. Drake,	3.74
William T. Dunn,	562.50
Dunn Manufacturing Co.,	2.50
Edson Manufacturing Co.,	.85
George A. Eggers,	137.19
Evening Journal Co.,	61.95
Fichtenmeyer & Flynn,	5.05
J. N. Gage,	.50
Charles A. Gray,	6.25
F. B. Greene, agent,	14.00
Greene & Wood,	31.59
Highways and Streets,	3,213.67
Highways and Streets, collecting ashes,	908.98
Highways and Streets, moving snow and ice,	5.00
T. M. Hart & Co.,	6.00
Hatch & Co.,	.80
N. P. Hayes,	8.05
S. W. Hayes, M. D.,	141.00
Edward O. Higgins,	1.60
Hillman, Washburn & Co.,	7.09
Josiah Hunt,	78.10
Ingersoll-Sargent Drill Co.,	155.82
Iron Sewer Brace Co.,	24.00
John Kearney,	24.61
Joseph P. Kennedy,	.50
Kirby & Hicks,	8.25
S. C. Lowe,	10.96
Morse Twist Drill and Machine Co.,	4.30

N. B. Boiler and Machine Co.,	29.56	
N. B. Cordage Co.,	35.08	
N. B. Street Transportation Co.,	96.00	
N. B. Water Works,	14.05	
N. Y., N. H. & H. Railroad Co.,	1.88	
S. S. Paine & Bro.,	5,951.99	
C. S. Paisler,	60.45	
E. F. Penney,	2.08	
Portland Stone Ware Co.,	4.02	
Purrlington, Brown & Richards,	6.45	
A. S. Rounsevell & Co.,	.16	
Sewer, Belleville avenue No. 4,	25.01	
Sewer, Davis street,	153.89	
A. K. P. Sawin,	3.72	
J. H. Sherman,	1.40	
J. L. Sherman,	5.64	
Smith-Carleton Iron Co.,	2.19	
F. L. Sowle & Co.,	21.88	
George H. Spooner & Bro.,	64.00	
Union Boot and Shoe Co.,	25.50	
William R. West,	.40	
Wood, Brightman & Co.,	319.10	\$18,362.90
To transfer to Davis street sewer.		200.00
To transfer to balance.		285.40
		<u>\$18,848.30</u>

Cr.

By appropriation,	\$15,000.00	
Transfer from unappropriated funds,	171.25	
Cash receipts, as per Treasurer's report,	3,677.05	\$18,848.30

SEWER, ACUSHNET AVENUE — LOWERING.

Dr.

Pay rolls,	\$62.20	
Highways and Streets,	8.92	
Sewers, general,	35.04	\$106.16
To transfer to balance,		443.84
		<u>\$550.00</u>

Cr.

By special appropriation,	<u>\$550.00</u>
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SEWER, ACUSHNET AVENUE, NO. 19.

Dr.

Pay rolls,	\$100.28	
Highways and Streets,	31.46	
Sewers, general,	160.22	\$291.96
To transfer to balance,		308.04
		<u>\$600.00</u>

Cr.

By special appropriation,	<u>\$600.00</u>
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SEWER, BEETLE STREET, NO. 2.

Dr.

Pay rolls,	\$865.04	
Sewers, general,	124.72	
Sewer, Belleville avenue, No. 2,	.20	
Highways and Streets,	88.99	
George A. Brownell,	.25	
George A. Eggers,	27.50	
Greene & Wood,	8.47	\$1,115.17
To transfer to sewer, Maple street, No. 2,		500.00
To transfer to sewer, Rounds street,		3.71
To transfer to balance,		381.12
		<u>\$2,000.00</u>

Cr.

By special appropriation,	<u>\$2,000.00</u>
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SEWER, BELLEVILLE AVENUE, NO. 4.

Dr.

Pay rolls,	\$436.20	
Sewers, general,	70.44	
Highways and Streets,	76.81	
George A. Eggers,	36.48	
N. P. Hayes,	1.16	
Otheman & Dunham,	3.55	
S. S. Paine & Bro.,	49.98	\$674.62
To transfer to balance,		350.59
		<u>\$1,025.21</u>

Cr.

By special appropriation,	\$1,000.00	
Cash receipts, as per Treasurer's report,	25.21	<u>\$1,025.21</u>

SEWER, BELLEVILLE AVENUE, NO. 5.

DR.

Pay rolls,	\$63.37	
Highways and Streets,	8.52	
Sewers, general,	47.82	
Otheman & Dunham,	2.38	\$122.09
To transfer to sewer, Rounds street,		77.91
		<u>\$200.00</u>

CR.

By special appropriation,	<u>\$200.00</u>
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SEWER, BONNEY STREET.

DR.

Pay rolls,	\$12,106.97
Joseph E. Alexander,	325.56
Isaac L. Ashley,	30.06
C. T. Bosworth & Co.,	1.75
George A. Brownell,	1.00
William P. Butler,	8.80
John Connor,	126.44
Patrick Connor,	226.73
T. S. Corson,	12.00
Denison Bros. Co.,	4.00
DeWolf & Vincent,	6.25
David Duff & Son,	33.60
Dollie Goodrow,	2.41
Greene & Wood,	7.81

N. P. Hayes,	20.87	
Highways and Streets,	2,772.63	
Jos. Jacinth,	3.29	
John Jacintho,	3.18	
Jos. Jason,	74.76	
A. S. Jenks.	2.52	
Joseph P. Kennedy,	.21	
R. B. King,	2.33	
S. C. Lowe,	11.00	
John McCullough,	56.20	
N. B. Street Transportation Co.,	738.13	
S. S. Paine & Bro.,	7,134.22	
Parks Commission,	61.40	
Purrington, Brown & Richards,	8.55	
C. G. & G. A. Randall,	68.29	
Sewers, general,	610.00	
Timothy Sheehan,	202.94	
C. H. Sherman,	2.24	
J. L. Sherman,	6.55	
E. E. Simmons,	2.90	
F. L. Sowle & Co.,	15.36	
J. W. Spooner,	9.04	
E. R. Swain,	.63	
M. L. Sylvia,	23.04	
M. S. Sylvia,	26.49	
E. & K. C. Terry,	11.77	
Thomas B. Tripp,	118.94	
Thomas B. Tripp, agent,	55.46	\$24,936.32
To transfer to balance,		63.68
		<u>\$25,000.00</u>

CR.

By special appropriation,	<u>\$25,000.00</u>
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SEWER, CENTRAL ENGINE HOUSE DRAIN.

DR.

Pay rolls,	\$99.23	
Sewers, general,	3.92	
Highways and Streets,	169.81	
J. H. Sherman,	28.52	\$301.48

CR.

By transfer from unappropriated funds,	\$300.00	
Cash receipts, as per Treasurer's report,	1.48	\$301.48

SEWER, CHANCERY STREET.

DR.

Pay rolls,	\$85.10	
Sewers, general,	50.63	
Highways and Streets,	9.00	
To transfer to balance,	5.27	\$150.00

CR.

By special appropriation,	\$150.00

SEWER, CLARK STREET, NO. 3.

DR.

Pay rolls,	\$776.03	
Sewers, general,	160.82	
Highways and Streets,	87.90	
George A. Brownell,	1.45	
Otheman & Dunham,	.30	
S. S. Paine & Bro.,	12.42	
Dr. M. V. Sylvia,	42.70	\$1,081.62
To transfer to sewer, Rounds street,		918.38
		<u>\$2,000.00</u>

CR.

By special appropriation,	<u>\$2,000.00</u>
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SEWER, COPPER STREET.

DR.

Pay rolls,	\$600.29	
Sewers, general,	424.45	
Highways and Streets,	579.52	
Greene & Wood,	7.10	
N. P. Hayes,	4.50	
N. B. Street Transportation Co.,	9.75	
S. S. Paine & Bro.,	369.67	
Perkins & Chase,	4.72	\$2,000.00

CR.

By special appropriation,	<u>\$2,000.00</u>
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SEWER, DAVIS STREET.

Dr.

Pay rolls,	\$1,437.05	
Sewers, general,	12.00	
Highways and Streets,	25.94	
Denison Bros. Co.,	114.28	
George A. Eggers,	293.40	
S. C. Lowe,	2.10	
Otheman & Dunham,	5.65	
S. S. Paine & Bro.,	26.69	\$1,917.11
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Cr.

By transfer from sewer, Market and Pleasant streets,	\$800.00	
By transfer from unappropriated funds,	763.22	
Transfer from sewers, general,	200.00	
Cash receipts, as per Treasurer's report,	153.89	\$1,917.11
		<hr/>

SEWER, ELM STREET.

Dr.

Pay rolls,	\$89.92	
Sewers, general,	45.14	
Highways and Streets,	12.09	\$147.15
To transfer to balance,		202.85
		<hr/>
		\$350.00

Cr.

By special appropriation,	\$350.00
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SEWER, FRONT AND COMMERCIAL STREETS.

Dr.

Pay rolls,	\$971.87	
Sewers, general,	253.36	
Highways and Streets,	147.53	
David Duff & Son,	15.43	
George A. Eggers,	53.75	
John McCullough,	9.40	
N. B. Water Works,	12.74	
S. S. Paine & Bro.,	13.66	
C. G. & G. A. Randall,	31.06	\$1,508.80
To transfer to balance,		487.20
		<hr/> \$1,996.00

Cr.

By special appropriation,	<hr/> \$1,996.00
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SEWER, MAPLE STREET, NO. 2.

Dr.

Pay rolls,	\$1,382.35	
Sewers, general,	487.74	
Highways and Streets,	184.05	
George A. Brownell,	1.00	
David Duff & Son,	40.22	
George A. Eggers,	74.25	
N. B. Street Transportation Co.,	39.00	
S. S. Paine & Bro.,	321.30	
Perkins & Chase,	4.90	
Purrrington, Brown & Richards,	1.25	\$2,536.06

Cr.

By special appropriation,	\$2,000.00	
Transfer from sewer, Beetle street,	500.00	
Transfer from sewer, Mitchell street,	36.06	\$2,536.06

SEWER, MARKET AND PLEASANT STREETS.

DR.

Pay rolls,	\$246.76	
Sewers, general,	48.79	
Highways and Streets,	28.10	
George A. Eggers,	5.80	\$329.45
To transfer to sewer, Davis street,		800.00
To transfer to balance,		228.73
		<u>\$1,358.18</u>

CR.

January 1, 1894. By balance,	<u>\$1,358.18</u>
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SEWER, MITCHELL STREET.

DR.

Pay rolls,	\$379.05	
Sewers, general,	177.79	
Highways and Streets,	34.95	
Greene & Wood,	50.63	
N. P. Hayes,	2.50	\$644.93
To transfer to sewer, Maple street, No. 2,		36.06
Transfer to balance,		519.01
		<u>\$1,200.00</u>

CR.

By special appropriation,	<u>\$1,200.00</u>
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SEWER, PURCHASE STREET, NO. 10.

DR.

Pay roll,	\$611.82	
Sewers, general,	123.56	
Highways and Streets,	85.79	
Felix Bartels,	3.30	
N. B. Street Transportation Co.,	19.50	
S. S. Paine & Bro.,	319.32	
M. V. Sylvia, M. D.,	10.00	\$1,173.29
To transfer to balance,		401.71
		<u>\$1,575.00</u>

CR.

By special appropriation,	<u>\$1,575.00</u>
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SEWER, ROUNDS STREET.

DR.

Pay roll,	\$126.41	
Sewers, general,	86.80	
Highways and Streets,	17.68	\$230.89
To transfer to balance,		769.11
		<u>\$1,000.00</u>

CR.

By transfer from sewer, Clark street, No. 3,	\$918.38	
“ “ “ Belleville ave., No 5,	77.91	
“ “ “ Beetle street, No. 2,	3.71	\$1,000.00

SEWER, WASHBURN STREET.

DR.

Pay roll,	\$247.28	
Highways and Streets,	416.76	
S. C. Lowe,	1.25	
Otheman & Dunham,	2.50	
S. S. Paine & Bro.,	6.83	
Frank R. Pease,	1.65	
Perkins & Chase,	1.50	
J. L. Sherman,	29.44	\$707.21
To transfer to balance,		792.79
		<u>\$1,500.00</u>

CR.

By special appropriation,	<u>\$1,500.00</u>
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COGGESHALL STREET BRIDGE.

DR.

Bristol county,	<u>\$30,000.00</u>
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CR.

By appropriation,	<u>\$30,000.00</u>
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SINKING FUNDS.

DR.

To paid Sinking Fund Commissioners,		<u>\$83,751.39</u>
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CR.

By appropriation,	\$71,120.00	
Cash receipts, as per Treasurer's report,	<u>12,631.39</u>	<u>\$83,751.39</u>

TEMPORARY LOAN.

DR.

To paid loans,		<u>\$490,000.00</u>
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CR.

January 1, 1894. By balance,	\$80,000.00	
By cash receipts, as per Treasurer's report,	<u>410,000.00</u>	<u>\$490,000.00</u>

TRUST FUNDS.

CR.

BY SYLVIA ANN HOWLAND FREE PUBLIC LIBRARY FUND:

One-half of the bequest of Sylvia Ann Howland for the support of liberal education and Free Public Library,	\$50,000.00
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BY SYLVIA ANN HOWLAND EDUCATIONAL FUND:

One-half of the bequest of Sylvia Ann Howland for the support of liberal education and Free Public Library,	50,000.00
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BY GEORGE HOWLAND, JR., FUND:

Donation to Free Public Library,	1,600.00
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BY CHARLES W. MORGAN FUND:

Bequest to Free Public Library,	1,000.00
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BY OLIVER CROCKER FUND:

Bequest to Free Public Library,	1,000.00
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BY JAMES B. CONGDON FUND:

Donation to Free Public Library,	500.00
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BY JONATHAN BOURNE PRIZE FUND:

Donation to School Committee,	1,000.00
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BY GEORGE O. CROCKER FUND:

Bequest to Free Public Library,	10,000.00
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BY ELIZABETH T. WOOD:

Bequest to Free Public Library,	2,000.00
	<u>\$117,100.00</u>

UNAPPROPRIATED FUNDS.

Dr.

To transfers to—

Appropriations, special, 1894,	\$87,892.02	
Cemeteries,	5,700.00	
Election fund,	3,000.00	
Engineering department,	700.00	
Fire department,	825.00	
Highways and Streets,	14,590.28	
Incidentals,	10,325.00	
License commission,	200.00	
Lighting the streets,	1,130.00	
Platting system,	3,350.00	
Police department,	10,300.00	
Repairs of city property,	1,800.00	
Sewers, general,	171.25	
Central Engine house drain,	300.00	
Sewer, Davis street,	763.22	
Paid Commonwealth of Massachusetts,	15,262.25	
Abram Alexander,	10.59	
Napoleon Beaulin,	12.72	
Edward F. Dehn,	10.59	
Francis Fahey,	12.72	
Ferdinand Gendron,	10.16	
Andrew Greenwood,	15.88	
Fred'k Hazzard,	31.44	
T. F. Healey,	16.88	
Alexander Jennings,	22.63	
Edward Lenaire,	15.45	
Stephen McNamara,	60.00	
Obed C. Nye, agent,	10.00	
Willard Nye, Jr.,	170.99	
Dieudonne Paquin,	10.16	
Real estate tax account,	10.00	
W. H. Reed,	.83	
Martha A. Sharples,	11.76	
Caleb Slade,	77.26	
Ezra Therrien	13.60	\$156,832.68
To transfer to balance,		23,038.21
		<u>\$179,870.89</u>

CR.

By Cash receipts, as per Treasurer's report,	<u>\$179,870.89</u>
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BALANCE OF PUBLIC PROPERTY.

DR.

To bonds issued,	\$441,000.00	
January 7, 1895. Balance,	778,951.99	\$1,219,951.99

CR.

January 4, 1894. By balance,	\$943,808.48	
By bonds paid,	129,000.00	
Public property,	51,464.24	
Sinking Fund Commissioners,	95,679.27	\$1,219,951.99

CR.

January 7, 1895. By balance,	<u>\$778,951.99</u>
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PUBLIC PROPERTY.

(OTHER THAN WATER WORKS.)

DR.

January 1, 1894. To balance,	\$1,383,805.00	
Increase in valuation over 1893,	51,464.24	\$1,435,269.24

NEW BEDFORD WATER WORKS.

(AS PUBLIC PROPERTY.)

DR.

January 7, 1895.	To valuation of works,	\$1,200,000.00
	<hr/>	<hr/>

SINKING FUND COMMISSIONERS.

DR.

January 1, 1894.	To balance,	\$283,003.48
To increase in hands of Commissioners over 1893,		95,679.27 \$378,682.75
	<hr/>	<hr/>

BONDS.

DR.

To bonds paid,	\$129,000.00
January 7, 1895. To balance,	2,135,000.00 \$2,264,000.00
	<hr/>

CR.

January 1, 1894. By balance,	\$1,823,000.00
By bonds issued,	441,000.00 \$2,264,000.00
	<hr/>

CR.

January 7, 1895. By balance,	\$2,135,000.00
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INTEREST PAYABLE IN 1895 ON PRESENT DEBT.

On \$100,000 Water bonds, at 7 per cent,	\$7,000
200,000 " " 6 "	12,000
100,000 " " 5 "	5,000
340,000 " " 4 "	13,600
181,000 Improvements, at 6 per cent,	10,860
476,000 " 4 "	19,040
140,000 " $3\frac{1}{2}$ "	4,900
423,000 Sewer bonds, at 4 per cent,	16,920
75,000 " " $3\frac{1}{2}$ "	2,625
100,000 Park loan, at 4 per cent,	4,000
<hr/> \$2,135,000	<hr/> \$95,945

THE FOLLOWING TABLE SHOWS THE AMOUNT OF TAXES LEVIED IN THIS CITY SINCE 1875, AND
THE RATE PER THOUSAND, FOR STATE COUNTY AND CITY PURPOSES;
ALSO THE NUMBER OF POLLS.

Year.	Valuation of Real Estate.	Valuation of Personal Property	State Tax.	County Tax.	City Tax.	Overlay.	No. of Polls.	Rate of Tax.
1875	\$11,946,600	\$14,428,674.00	\$32,280	\$28,415.48	\$383,000	\$17,136.07	6,226	\$17.00
1876	12,411,200	14,339,002.00	26,244	23,859.86	387,000	20,251.49	6,651	16.60
1877	12,609,200	13,524,097.00	21,870	23,859.86	436,200	17,273.46	6,502	18.60
1878	12,808,700	13,137,011.20	14,580	25,249.76	371,500	17,259.61	6,729	16.00
1879	12,898,300	12,874,418.00	7,290	25,666.72	386,000	17,497.36	6,891	16.40
1880	13,138,400	13,137,519.00	21,870	28,377.03	361,250	15,080.89	7,028	15.70
1881	13,505,400	13,699,922.00	21,870	26,871.30	437,300	16,084.49	7,025	18.00
1882	14,138,300	13,974,587.00	20,160	25,689.88	434,200	17,605.64	7,340	17.50
1883	15,109,300	15,180,305.00	25,770	29,468.95	452,400	16,614.41	7,694	16.80
1884	15,635,900	15,718,182.00	34,360	26,668.72	462,700	13,031.04	8,141	16.60
1885	16,293,800	15,104,090.00	27,770	27,735.50	457,950	17,028.11	8,349	16.30
1886	16,778,900	15,416,695.50	27,015	33,883.77	456,300	15,328.18	8,699	16.00
1887	17,372,600	15,309,658.00	40,522 $\frac{1}{2}$	38,485.28	489,700	18,075.50	9,056	17.40
1888	18,023,700	15,430,647.00	40,522 $\frac{1}{2}$	41,274.10	486,411	19,364.29	9,424	17.00
1889	18,928,800	15,718,866.00	34,700	51,476.17	508,600	17,642.91	9,972	17.10
1890	20,041,700	16,829,154.00	30,362 $\frac{1}{2}$	50,632.30	519,300	22,120.12	10,710	16.30
1891	20,959,300	14,979,600.00	26,025	47,819.40	550,200	26,134.37	11,160	16.30
1892	22,094,300	18,179,813.00	31,377	51,410.26	606,700	27,976.39	11,861	17.30
1893	25,344,300	19,130,798.00	44,825	57,699.11	673,689	28,077.05	12,988	17.50
1894	31,835,500	19,599,425.00	35,860	67,796.46	699,176	25,711.57	13,080	15.60

Average tax rate for twenty years, \$16.80.

CITY OF NEW BEDFORD.
IN COMMITTEE, March 15, 1895.

The sub-committee appointed to appraise the city property, and prepare a schedule of the same, have attended to that duty, and submit the following report:—

Poor department:

Almshouse and outbuildings,	\$36,000.00	
Farm, containing 70 acres,	14,000.00	
Furniture in almshouse,	2,750.00	
Farming and mechanics' tools,	450.00	
Tedders, horse-rake, manure spreader, etc.,	250.00	
Carts, gears, lumber wagons, etc.,	1,325.00	
Ambulance,	250.00	
Horses, oxen, cows, hogs and poultry,	1,435.00	
Hay, grain, vegetables, pork, etc.,	2,968.00	
Wood and coal shed, corner North Second and North streets,	3,000.00	
Wood and coal in shed,	2,000.00	\$64,428.00

Board of Health:

Smallpox hospital,	1,000.00	
Old almshouse and outbuildings,	1,500.06	
Furniture in hospital,	75.00	2,575.00

Highways and Streets department:

Sundries, as per Superintendent's report,	30,385.28
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Sewer department:

Sundries, as per Superintendent's report,	12,310.96
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Engineering department:

Sundries, as per inventory,	1,200.00
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Street Light department:

Gas and naphtha lamps, posts and lanterns,	4,000.00	
Two houses for oil,	300.00	
Tools for Inspector of Petroleum,	50.00	4,350.00

Public buildings, land, etc.:

City hall and lot,	70,000.00
City Library building and lot,	75,000.00
City Common,	50,000.00
Rural cemetery,	20,000.00
Oak Grove cemetery,	15,000.00
Pine Grove cemetery,	800.00
Central police station and lot,	21,300.00
Willis street police station and lot,	2,500.00

West police station,	300.00	
Police station and lot, corner South Water and Blackmer streets,	22,070.00	
Police station and lot, corner Bowditch and Weld streets,	17,500.00	
Police signal barn and lot,	6,500.00	
Police telegraph signal system, including harnesses, horses, wagons and apparatus,	9,550.00	
Volumes in City Library,	56,300.00	
Land on Clark's Point,	200.00	
South pound lot,	200.00	
Ward house and lot, Fifth ward,	1,400.00	
Ward house and lot, Sixth ward,	1,600.00	
Standard weights and measures,	300.00	
Surveying instruments,	800.00	
Two brass field pieces, muskets, etc.,	1,300.00	
City stable lot and buildings,	46,000.00	
Brooklawn park,	30,000.00	
Buttonwood park,	34,000.00	
Grove park,	10,500.00	
Triangle park,	1,000.00	
Building and lot, corner High and Foster streets,	2,000.00	496,120.00

School department :

Acushnet schoolhouse and lot,	7,500.00
Acushnet avenue "	48,800.00
Cannonville "	1,500.00
Cedar street "	6,500.00
Cedar Grove street "	47,900.00
Clark's Point "	800.00
Dartmouth street "	16,900.00
Fifth street "	50,000.00
High "	127,000.00
Kempton street "	64,500.00
Linden street "	2,500.00
Madison street "	59,300.00
Maxfield street "	20,000.00
Merrimac street "	18,000.00
Middle street "	30,000.00
North, Tobey road, "	2,000.00
Parker street "	50,000.00
Plainville "	1,000.00
Rockdale "	1,200.00
William street "	5,000.00
Thompson street "	36,000.00

Harrington schoolhouse and lot,	53,000.00	
Division street “	30,000.00	
Truant schoolhouse,	1,700.00	
Clark street schoolhouse lot,	6,000.00	687,100.00
Fire department :		
Engine house and lot, Acushnet,	1,200.00	
Engine house and lot, Acushnet avenue and Davis street,	28,000.00	
Engine house and lot, Hillman street,	20,100.00	
“ “ Purchase st., No. 1,	12,000.00	
“ “ Purchase st., No. 2,	12,000.00	
“ “ Fourth street,	13,000.00	
“ “ Bedford street,	14,900.00	
“ “ Durfee street,	15,000.00	
Steam fire engine, No. 1,	3,000.00	
“ No. 2,	3,000.00	
“ No. 4,	3,000.00	
“ No. 5,	3,500.00	
“ No. 6,	3,000.00	
“ No. 7,	3,300.00	
“ No. 8,	3,500.00	
“ No. 5 and 2 (old),	500.00	
Nine hose carriages,	3,800.00	
Hand engine, No. 9,	500.00	
Hayes truck, No. 1,	3,000.00	
Ryan truck, No. 2,	1,200.00	
Hayes truck, No. 3,	3,000.00	
Fourteen thousand feet of hose,	7,000.00	
Thirty-five horses and harnesses,	7,000.00	
Ten wagons,	3,000.00	
Fire alarm telegraph, including bells, strikers, etc.,	20,000.00	
Sundries,	2,500.00	190,000.00
		<u>\$1,488,469.24</u>
New Bedford Water Works,		1,200,000.00
		<u>\$2,688,469.24</u>

RECAPITULATION.

Poor department,	\$64,428.00	
Board of Health,	2,575.00	
Highways and Streets department,	30,385.28	
Sewer department,	12,310.96	
Engineering department,	1,200.00	
Street light department,	4,350.00	
Public buildings, land, etc.,	496,120.00	
School department,	687,100.00	
Fire department,	190,000.00	
New Bedford Water Works,	1,200,000.00	\$2,688,469.24

Respectfully submitted.

CHARLES H. ADAMS,
JASON L. BALLOU,
ALBERT WILDE,
Committee.

AUDITOR'S TRIAL BALANCE.

JANUARY 7, 1895.

DR.

New Bedford Water Works, as public property,	\$1,200,000.00	
Public property, other than water works,	1,435,269.24	
Sinking Fund Commissioners,	378,682.75	
Appropriations, general, 1894,	41,589.21	
" " 1893,	20,746.13	
" " 1892,	8,747.49	
" " 1891,	5,597.81	
" " 1890,	16,137.67	
" " 1889,	12,974.17	
Appropriation, special, 1894,	1,120,208.27	
Commonwealth of Mass., chap. 279,	1,286.97	
" " chap. 301,	9,032.43	
" " chap. 395,	210.00	
" " chap. 447,	1,246.17	
Real estate tax account,	1,276.08	
City Treasurer, balance of cash,	179,395.66	\$4,432,400.05

CR.

Trust funds,	\$117,100.00	
Bonds,	2,135,000.00	
Balance of public property,	778,951.99	
Cemeteries, sale of lots,	1,279.21	
Cemetery funds,	25,934.93	
Engineering department,	528.10	
Free Public Library, catalogues,	96.33	
" " Trustees of,	3,293.02	
" " dog fund,	.26	
Incidentals,	516.67	
Kempton street schoolhouse and lot,	690.68	
N. B. School Committee, Howland fund,	1,517.00	
N. B. School Committee, Jona. Bourne prize fund,	30.00	
N. B. Water Works,	57,963.88	
Parks Commission.	4,821.86	
Permanent debt,	1,179.60	
Platting system,	4,974.28	

Public schools, dog fund,	3,632.20	
Public schools, manual training,	235.46	
Acushnet avenue schoolhouse addition, heating,	706.63	
Schoolhouse, Fourth and Madison streets, heating,	800.00	
N. B. Water Works, further supply,	1,218,147.95	
Appropriations, special, 1894, loan,	75,000.00	\$4,432,400.05

We have examined the foregoing, and find it correct.

JOHN H. BARROWS,
ARTHUR L. BLACKMER,
CHARLES L. BROWNELL,

Sub-committee of the Committee on Finance, appointed to examine the books and accounts of the Auditor and Treasurer.

Approved.

JOHN H. BARROWS,
LUTHER G. HEWINS, JR.,
LEWIS E. MILLIKEN,
CHARLES H. L. DELANO,
JOSEPH A. WRIGHT,

Committee of Audit.

IN COMMON COUNCIL,

3 mo., 28, 1895.

Received, ordered printed in the City Documents, and
sent up for concurrence.

WM. A. MACKIE, Clerk.

IN BOARD OF ALDERMEN,

March 28, 1895.

Concurred.

D. B. LEONARD, City Clerk.

ANNUAL REPORT

OF THE

CITY TREASURER

FOR THE YEAR 1894.

REPORT.

CITY OF NEW BEDFORD.

TREASURER'S OFFICE,

January 7, 1895.

To the City Council.

GENTLEMEN:—In accordance with the provisions of the ordinances of the city, I herewith most respectfully present my account for the year 1894.

JAMES H. HATHAWAY,
City Treasurer.

RECEIPTS.

Balance, January 1, 1894,		\$8,416.28
APPROPRIATIONS, GENERAL, 1888.		
State Treasurer, balance of corporation tax,		2,347.78
APPROPRIATIONS, GENERAL, 1889.		
From Collector, taxes of 1889,		739.70
APPROPRIATIONS, GENERAL, 1890.		
From Collector, taxes of 1890,		5.00
APPROPRIATIONS, GENERAL, 1891.		
From Collector, taxes of 1891,		87.57
APPROPRIATIONS, GENERAL, 1892.		
From Collector, taxes of 1892,		4,241.96
APPROPRIATIONS, GENERAL, 1893.		
From Collector, taxes of 1893,		14,436.56
APPROPRIATIONS, GENERAL, 1894.		
From Collector, taxes of 1894, under dis- count,	\$630,887.95	
From Collector, taxes of 1894, at par,	16,530.08	
From Collector, part of corporation tax for discount, as per order of City Council,	10,000.00	
From difference between Assessors' account and Tax Commissioners' return,	219.56	657,637.59
APPROPRIATIONS, SPECIAL, 1893.		
From sale of Improvement bonds, 4s,	\$89,000.00	
From sale of Sewer bonds, 4s,	32,000.00	121,000.00
APPROPRIATIONS, SPECIAL, 1894.		
From note N. B. Safe Deposit and Trust Co., due May 1, 1895,	\$75,000.00	
From sale of bonds, issued under Chap. 345, Acts of 1894, for further water supply,	200,000.00	275,000.00
BOARD OF HEALTH.		
From amount returned by N. B. Tow Boat Co., twice audited,		10.00
CEMETERIES—SALE OF LOTS.		
From sundry persons for burial lots,		4,045.00

CEMETERY FUNDS.

From sundry persons, deposits for perpetual care,		1,840.00
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COMMONWEALTH OF MASSACHUSETTS, CHAP. 279.

From State Treasurer, one-half of amount advanced to January 1, 1894,	\$1,317.50	
From State Treasurer, for burial of soldiers,	227.50	
From City Treasurer, amounts unclaimed,	12.00	1,557.00

COMMONWEALTH OF MASSACHUSETTS, CHAP. 301.

From State Treasurer, amount advanced to January 1, 1894,	\$8,521.43	
From City Treasurer, amounts unclaimed,	262.74	8,784.17

COMMONWEALTH OF MASSACHUSETTS, CHAP. 447.

From account, Chap. 395, for burial of soldiers,		115.00
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BELLEVILLE AVENUE SEWER, NO. 4.

From Highways and Streets and General Sewer account for labor and material furnished,		25.21
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CENTRAL ENGINE HOUSE DRAIN.

From Highways and Streets, material,		1.48
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DAVIS STREET SEWER.

From General Sewer account, material,		153.89
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FIRE DEPARTMENT.

From amount returned, error in pay roll,	\$15.00	
From Police department, care of police signal,	780.00	795.00

FREE PUBLIC LIBRARY, DOG FUND.

From County Treasurer, one-half amount re- ceived from dog licenses,	\$1,337.59	
From error in audit, May 11, 1894,	20.00	1,357.59

FREE PUBLIC LIBRARY, TRUSTEES.

From Permanent Debt account, interest on trust funds,		3,726.00
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GENERAL SEWER ACCOUNT.

From other sewers, material and labor,	\$3,638.00	
From amount returned, audited twice,	39.05	3,677.05

HIGHWAYS AND STREETS.

From Highways and Streets, Collecting		
Ashes account, carting,	\$7,519.26	
From Highways and Streets, Moving Snow		
and Ice account, labor,	434.82	
From Parks Commission, material and labor,	1,813.31	
From New Bedford and Fairhaven bridge,		
coal, etc.,	17.01	
From General Sewer account, material and		
labor,	2,050.03	
From layout and acceptance of Sears court,		
stock and labor,	417.92	
From Engineering department, rent, janitor		
and lights,	381.98	
From amounts returned, audited twice,	11.80	
From sundry sewer accounts, labor and ma-		
terial,	3,219.55	15,865.68

HIGHWAYS AND STREETS, COLLECTING ASHES.

From General Sewer account, filling,	\$891.06	
From Morning Mercury, amount returned,		
second audit,	1.20	892.26

HIGHWAYS AND STREETS, MOVING SNOW AND ICE.

From General Sewer account, lantern globes,		5.00
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INCIDENTALS.

From Election fund, transfer,	\$175.37	
From amounts returned, twice audited,	66.73	242.10

PARKS COMMISSION.

From Highways and Streets, material,	\$42.05	
From Bonney street sewer, material,	61.40	
From sale of barn at Brooklawn,	60.00	
From sale of cage,	5.00	
From sale of turtle,	2.00	
From rent of stands, Common, July 4,	2.50	172.95

POOR DEPARTMENT.

From State Aid account,		36.00
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POOR DEPARTMENT, EMERGENCY FUND.

From amounts unclaimed, pay roll,		40.26
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POLICE DEPARTMENT.

From Board of Health, salary of Inspector,	\$1,020.25	
From sale of dressing,	30.15	1,050.40

PUBLIC DEBT.

From accrued interest on Sewer and Improvement bonds sold,	\$403.33	
From refunding Water bonds, 4s, sold,	120,000.00	
From water rates,	20,000.00	140,403.33

REAL ESTATE TAX ACCOUNT.

From real estate and sewer taxes redeemed after sale,	641.99
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SCHOOL COMMITTEE.

From County Treasurer, one-half of dog licenses received,	1,337.59
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SCHOOL COMMITTEE, JONATHAN BOURNE PRIZE FUND.

From Permanent debt, interest on fund,	60.00
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SCHOOL COMMITTEE, HOWLAND FUND.

From Permanent debt, interest on Sylvia Ann Howland fund,	3,000.00
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SCHOOLS, INCIDENTALS.

From amount returned, audited twice,	17.57
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SCHOOLS, PAY OF TEACHERS.

From error in pay roll,	11.25
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SINKING FUNDS.

From premium received from sale of Sewer bonds,	\$1,622.40	
From premium received from sale of Improvement bonds,	2,572.99	
From premium received from sale of Water bonds,	8,436.00	12,631.39

TEMPORARY LOAN.

From note, N. B. Institution for Savings,	\$60,000.00	
From note, Morgan, Bartlett & Co., N. Y.,	250,000.00	
From note, N. B. Safe Deposit and Trust Co.,	100,000.00	410,000.00

UNAPPROPRIATED FUNDS.

COUNTY.

From County Treasurer, account of work-house,	\$77.00
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INTEREST.

From N. B. Safe Deposit and Trust Co., interest on deposits,	\$1,501.41	
From Collector of Taxes, costs and interest,	1,349.73	2,851.14

LICENSES, FEES AND FINES.

From City Clerk, licenses and fees,	\$2,305.60	
From Collector of Taxes, collecting State's portion of bank tax,	419.51	
From Board of Health, pig licenses,	50.00	
From peddlers' licenses,	50.00	
From Inspector of Milk, licenses,	130.00	
From Third District Court, fines,	5,977.99	
From House of Correction, fines,	1,622.61	
From liquor licenses, including one-fourth due State, as follows:		
38 first and fourth classes at \$1,500,	57,000.00	
3 fourth class at \$600,	1,800.00	
47 sixth class at \$1,	47.00	
10 club at \$200,	2,000.00	
From Sealer of Weights and Measures, fees,	300.49	
From fees, sewer entrances,	730.00	72,433.20

RENTS.

From rent of City hall,	\$561.00	
From rent of Veteran Firemen's building,	150.00	
From rent of Court room, from county,	300.00	1,011.00

DEPARTMENTS.

From cemeteries, screenings from Highways and Streets,	\$4.49	
From Central Engine house drain, material, etc.,	173.73	
From Clark street sewer, No. 3, blacksmithing,	30.59	
From Beetle street sewer, No. 2, blacksmithing, etc.,	28.06	
From Belleville avenue sewer, No. 4, material,	33.45	

From Belleville avenue sewer, No. 5, material,	2.45
From Bonney street sewer, material,	694.86
From Fire department, drain,	4.86
From Fire department, extra force Street department,	19.78
From Fire department, sale of coal,	8.25
From Fire department, sale of horse,	122.40
From Fire department, sale of old material,	21.31
From Poor department, dressing from Fire department,	389.33
From Fire department, hay from Poor department,	897.35
From Front and Commercial sts. sewer, stock, etc.,	55.25
From General Sewer account, material and labor,	1,181.56
From Highways and Streets, material and labor,	148.37
From Incidental account, perpetual care cemeteries:	
Rural cemetery,	576.25
Oak Grove cemetery,	387.01
Pine Grove cemetery,	4.00
Friends' ground,	15.27
From Incidental account, trimming trees,	537.49
From Market and Pleasant streets sewer, material,	27.60
From Maple street sewer, No. 2, material,	50.94
From Maple street sewer, No. 3, labor and material,	130.11
From New Bedford and Fairhaven bridge, material,	4.05
From Parks Commission, labor, material, etc.,	1,628.65
From Police department, hay from Poor department,	79.30
From Police department, carting by Street department,	1.00

From Police department, concrete by Street department,	49.46	
From Poor department, carting orders, Street department,	565.50	
From Poor department, sale of farm products,	261.33	
From Repairs City Property ac- count, removing snow and ice,	1,804.73	
From School Committee, trim- ming trees,	85.54	
From Water Works, carting by Street department,	7.35	
From Water Works, board horses and shoeing, Street department,	727.06	10,758.73

SEWER TAXES.

From sundry persons, sewer assessments,	5,263.09
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STATE.

From State Treasurer:

Account Corporation tax, '93,	\$9,960.92	
Account Corporation tax, '94,	46,899.92	
Tax on ships in the foreign trade,	1,623.25	
Bank tax, non-resid't owners,	3,170.87	
Portion expense, contagious diseases,	37.10	
Support paupers,	1,011.85	
Temporary support,	1,225.34	
Transportation,	10.50	
Burial paupers,	595.00	64,534.75

SUNDRY SOURCES.

From amounts returned, twice audited,	\$45.76	
From sale of filing cases,	2.00	
From amounts unclaimed, pay rolls,	54.14	
From sundry persons, care of cem- etery lots,	4,163.15	
From sundry persons, labor, cart- ing and material furnished by board of Public Works,	11,362.13	
From sundry persons, support at almshouse and lunatic hospitals,	1,712.71	

From D. J. Sullivan, sewer construction,	581.65		
From tuition, non-resident pupils,	965.67		
From Superintendent of Schools, sale of table,	10.53		
From cities and towns, to reimburse Poor department for money advanced,	4,003.56		
From W. F. Williams, services of Engineering department,	32.30		
From Wamsutta Mills, services of Engineering department,	8.38	22,941.98	179,870.89

WATER WORKS.

From Registrar :

Amount received for rates,	\$83,513.30		
Amount received for services,	5,769.44		
Amount received for mains,	1,040.70		
Amount received for meters,	810.97		
Sale of hay,	44.70		
Fines for non-payment,	8.00	91,187.11	

WATER WORKS, FURTHER SUPPLY.

From premium on bond issue of \$200,000,	18,632.00		
		<u>\$1,986,097.60</u>	

EXPENDITURES.

[FOR DETAILED STATEMENT, SEE AUDITOR'S REPORT.]

Paid on Mayor's warrant :

Jan. 10, 1894,	Audit No. 1,	\$6,715.69
17,	No. 2,	21,200.76
24,	No. 3,	8,400.43
31,	No. 4,	6,808.56
Feb. 7,	No. 5,	42,482.43
14,	No. 6,	7,189.50
21,	No. 7,	6,876.87
Mar. 1,	No. 8,	41,832.40
8,	No. 9,	33,708.26
15,	No. 10,	8,056.55
22,	No. 11,	7,674.99
28,	No. 12,	9,462.94
Apr. 4,	No. 13,	6,416.36
7,	No. 14,	67,727.60
12,	No. 15,	8,235.21
18,	No. 16,	6,919.61
25,	No. 17,	7,381.44
May 2,	No. 18,	8,800.53
10,	No. 19,	149,230.66
17,	No. 20,	26,391.75
24,	No. 21,	9,025.73
31,	No. 22,	8,575.21
June 7,	No. 23,	9,823.38
9,	No. 24,	27,890.21
14,	No. 25,	8,874.64
25,	No. 26,	8,153.06
28,	No. 27,	8,506.74
July 6,	No. 28,	8,387.05
11,	No. 29,	32,643.83
12,	No. 30,	6,469.82
19,	No. 31,	6,275.04
26,	No. 32,	5,352.05
Aug. 2,	No. 33,	6,188.58
10,	No. 34,	42,877.80
17,	No. 35,	13,337.92
22,	No. 36,	7,587.66
31,	No. 37,	6,808.48
Sept. 7,	No. 38,	10,811.94
11,	No. 39,	39,706.86
14,	No. 40,	9,415.72

Sept. 21, 1894,	Audit No. 41,	21,566.41	
28,	No. 42,	9,956.81	
Oct. 5,	No. 43,	8,976.83	
11,	No. 44,	230,524.27	
19,	No. 45,	10,111.10	
26,	No. 46,	28,088.19	
Nov. 1,	No. 47,	80,659.56	
9,	No. 48,	12,586.28	
12,	No. 49,	454,040.90	
16,	No. 50,	16,573.08	
23,	No. 51,	11,200.93	
30,	No. 52,	10,975.28	
Dec. 7,	No. 53,	9,914.42	
11,	No. 54,	39,451.35	
14,	No. 55,	10,228.97	
21,	No. 56,	9,207.48	
28,	No. 57,	8,213.74	
Jan. 4, 1895,	No. 58,	4,196.55	
11,	No. 59,	72,005.53	\$1,806,701.94
Balance, January 7, 1895,			179,395.66
			<u>\$1,986,097.60</u>

STATEMENT OF TRUST FUNDS HELD BY THE CITY, JANUARY 7, 1895.

New Bedford School Committee:

One-half Sylvia A. Howland bequest, invested in Water Works, Construction account. at 6%,	\$50,000.00
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Free Public Library, Trustees account:

One-half Sylvia A. Howland bequest, invested same as the above,	50,000.00
--	-----------

	<u>\$100,000.00</u>
--	---------------------

Free Public Library, Trustees' account. (Held as cash in the Treasury):

George Howland Jr., gift at 6%,	\$1,600.00	
Charles W. Morgan bequest, at 6%,	1,000.00	
Oliver Crocker bequest, at 6%,	1,000.00	
James B. Congdon gift, at 6%,	500.00	
George O. Crocker bequest, at 4%,	10,000.00	
Charles L. Wood library fund, at 4%,	2,000.00	16,100.00

Cemetery Funds, perpetual care of lots. (Held as cash in the treasury, at 6%):

From sundry persons,	\$25,934.93	
From sundry persons (deposited in sav- ings bank),	1,700.00	27,634.93
		<u>\$143,734.93</u>

IN BOARD OF ALDERMEN,

April 25, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

4 mo., 25, 1895.

Concurred.

WM. A. MACKIE, Clerk.

ANNUAL REPORT

OF THE

COLLECTOR OF TAXES

FOR THE YEAR 1894.

STATEMENT
OF THE
COLLECTOR OF TAXES.
1894.

CITY OF NEW BEDFORD.

TREASURER'S OFFICE,

January 7, 1895.

To the City Council of the City of New Bedford.

GENTLEMEN:—Herewith I present a statement of my account as Collector of Taxes for the City of New Bedford for the year ending January 6, 1895.

COLLECTOR'S STATEMENT, FROM 1887 TO 1893,
INCLUSIVE.

YEAR.	UNPAID JAN. 1, '94.	PAID & REMITTED.	UNPAID JAN. 7, '95.
1887	\$7,743.75	\$221.00	\$7,522.75
1888	7,351.43	119.00	7,232.43
1889	8,175.33	119.70	8,055.63
1890	7,327.32	245.00	7,082.32
1891	9,837.16	87.57	9,749.59
1892	15,337.84	4,241.96	11,095.88
1893	33,429.48	14,995.86	18,433.62
	\$89,202.31	\$20,030.09	\$69,172.22

TAXES OF 1894.

CHARGES.

State tax,	\$35,860.00	
County tax,	67,796.46	
City tax,	699,176.80	
Overlay,	25,711.57	
Additional tax,	2,421.90	\$830,966.73

PAYMENTS.

Paid State Treasurer, State tax,	\$35,860.00	
Paid County Treasurer, county tax,	67,796.46	
Paid City Treasurer, city tax,	647,418.03	
Abatements by Assessors,	6,124.57	
Discount, 5%,	38,628.45	
Balance of taxes uncollected,	35,139.22	\$830,966.73

The discount of 5 per cent for payments made from September 15 to October 15, inclusive, was as follows:—

Gross receipts of real and personal, other		
than National bank taxes,	\$733,076.32	
National bank taxes, gross,	40,096.54	\$773,172.86
Discount,		38,628.45
Net receipts under discount,		<u>\$734,544.41</u>

Of the taxes of 1894, $4\frac{23}{100}\%$ only remain unpaid at this date. Of the taxes of 1893 and previous years, the collections made during 1894 amounted to \$20,030.09, as shown by the foregoing table.

The State and county taxes of 1894 amounted to \$103,656.46 — nearly one-eighth of the whole levy.

The receipts from the State Treasurer for corporation and other taxes, for 1894, were as follows:—

Corporation taxes,	\$69,208.62	
National bank taxes,	3,170.87	
Tax on ships in foreign trade,	1,623.25	\$74,002.74

The sum due from the State for corporation taxes not yet collected, is \$5,512.57.

Of the amount received from the State Treasurer during the year, as shown above, \$10,000 was applied to the discount on taxes paid previous to October 16 ; the balance was placed to the credit of unappropriated funds, as shown by the Treasurer's Report.

Respectfully submitted

JAMES H. HATHAWAY,
Collector of Taxes.

IN BOARD OF ALDERMEN,

April 25, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

4 mo., 25, 1895.

Concurred.

WM. A. MACKIE, Clerk.

ANNUAL REPORT

OF THE

Sinking Fund Commissioners

OF THE

City of New Bedford,

FOR

THE YEAR 1894.

REPORT

OF THE

TREASURER OF THE SINKING FUND.

CITY OF NEW BEDFORD.

TREASURER'S OFFICE,

January 26, 1895.

*To the Commissioners of Sinking Funds of the City of
New Bedford.*

GENTLEMEN : — Herewith I present the statement of my account as Treasurer of Sinking Funds for the year ending January 6, 1895.

On the first of April, next, as shown by this report, \$80,000 Improvement bonds will become due — the first issue for which a sinking fund was created. It is pleasing to state that the amount standing to the credit of this fund is \$80,122.59, or \$122.59 more than required to provide for the payment. There are \$16,000 Attleborough bonds held by you, which fall due on the same date, leaving a balance of \$64,000 to be paid from the proceeds of the sale of other securities not yet matured; the most available being at this time either the Boston & Lowell's, purchased at par, or the Old Colony's, quoted at a much higher rate than the price paid for them.

Respectfully submitted.

JAMES H. HATHAWAY,
Treasurer of the Sinking Fund.

APPROPRIATIONS

BY CITY COUNCIL AND WATER BOARD TO REDUCE MUNICIPAL
DEBT FOR THE YEAR, INCLUDING VALUE OF SINKING
FUNDS, JANUARY 1, 1894.

Sinking funds, January 1, 1894,	\$281,003.48
For \$80,000 Improvement bonds, April 1, 1885, 10 years,	\$7,100.00
\$25,000 Improvement bonds, April 1, 1886, 10 years,	2,300.00
\$30,000 Sewer bonds, April 1, 1886, 20 years,	1,200.00
\$30,000 Sewer bonds, October 1, 1886, 20 years,	1,200.00
\$15,000 Sewer bonds, April 1, 1887, 20 years,	600.00
\$35,000 Improvement bonds, April 1, 1887, 10 years,	2,800.00
\$15,000 Improvement bonds, April 1, 1888, 10 years,	1,200.00
\$35,000 Sewer bonds, April 1, 1888, 20 years,	1,400.00
\$43,000 Sewer bonds, April 1, 1889, 20 years,	1,720.00
\$62,000 Improvement bonds, April 1, 1889, 10 years,	4,960.00
\$48,000 Sewer bonds, April 1, 1890, 20 years,	1,920.00
\$25,000 Improvement bonds, April 1, 1890, 10 years,	2,000.00
\$57,000 Sewer bonds, April 1, 1891, 20 years,	2,280.00
\$73,000 Improvement bonds, April 1, 1891, 10 years,	5,840.00
\$100,000 Sewer bonds, April 1, 1892, 20 years,	4,000.00
\$50,000 Improvement bonds, April 1, 1892, 10 years,	4,000.00
\$100,000 Park loan, June 1, 1892, 50 years,	1,000.00
\$108,000 Sewer bonds, April 1, 1893, 20 years,	4,320.00

\$62,000 Improvement bonds, April 1, 1893, 10 years,	12,960.00	
\$20,000 Water bonds, April 1, 1888, 30 years,	600.00	
\$32,000 Sewer bonds, April 1, 1894, 20 years,	1,200.00	
\$89,000 Improvement bonds, April 1, 1894, 10 years,	7,120.00	
\$120,000 Refunding Water bonds, April 1, 1894, 30 years,	2,100.00	
\$200,000 Water bonds (gold), December 15, 1894, 30 years,	4,000.00	77,820.00
Received for interest on investments,	12,090.38	
Received by order of Council, premium on sale of bonds,	12,631.39	24,721.77
Receipts, including balance, to Jan. 7, 1895.		\$383,545.25
Less premiums on securities purchased,		15,798.75
Sinking funds, less premium,		\$367,836.50

INVESTMENTS FOR THE YEAR 1894.

City of Bridgeport bonds :

Due January 1, 1924,	\$6,000.00	
Premium, at $104\frac{3}{4}$ \$3,000, at $104\frac{1}{2}$ \$3,000,	277.50	\$6,277.50

City of Meriden (Conn.) bonds :

Due May 1, 1907,	\$10,000.00	
Premium, $102\frac{3}{4}$,	275.00	10,275.00

City of New Bedford Water bonds :

Due April 1, 1924,	\$3,000.00	
Premium, 108,	240.00	3,240.00

City of Cambridge Sewer bonds :

Due August 1, 1924,	\$32,000.00	
Premium, $109\frac{1}{8}$,	2,920.00	34,920.00

City of Newton Water bonds :

Due April 1, 1924,	\$19,000.00	
Premium, $108\frac{3}{4}$,	1,591.25	20,591.25

Town of Wakefield bonds (Light) :

Due October 1, 1918,	\$9,000.00	
Premium, $105\frac{3}{4}$,	517.50	9,517.50

Indianapolis (Ind.) Refunding bonds :

Due June 30, 1924,	\$5,000.00	
Due March 1, 1924,	5,000.00	\$10,000.00
Premium, $104\frac{3}{4}$,	475.00	10,475.00

City of Cambridge Park loan :

Due February 1, 1924,	\$4,000.00	
Premium, $109\frac{3}{8}$,	375.00	4,375.00

City of Woonsocket bonds (Refunding) :

Due April 1, 1924,	\$3,000.00	
Premium, $106\frac{3}{8}$,	191.25	3,191.25

Bonds purchased, including premium,		\$102,862.50
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Bonds, including premium, Jan. 1, 1894,	\$276,846.25	
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Deposits in Savings banks,	2,500.00	
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Deposit in National Bank of Commerce,	1,336.50	280,682.75
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Value of investments, January 7, 1895,		\$383,545.25
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AMOUNT OF SINKING FUNDS AND LOAN SECURED BY SAME IN EACH CLASS.

CLASS.	SINKING FUND.	LOAN.	WHEN DUE.
1	\$80,122.59	\$80,000.00	April 1, 1895.
2	24,824.71	25,000.00	" 1896.
3	12,951.31	30,000.00	" 1906.
4	11,276.86	30,000.00	Oct. 1, 1906.
5	5,649.57	15,000.00	April 1, 1907.
6	26,312.23	35,000.00	" 1897.
7	9,653.85	15,000.00	" 1898.
8	11,262.83	35,000.00	" 1908.
9	4,822.86	20,000.00	" 1918.
10	11,602.55	43,000.00	" 1909.
11	33,475.68	62,000.00	" 1899.
12	10,579.46	48,000.00	" 1910.
13	11,020.40	25,000.00	" 1900.
14	9,853.88	57,000.00	" 1911.
15	25,239.82	73,000.00	" 1901.
16	12,766.63	100,000.00	" 1912.
17	12,766.63	50,000.00	" 1902.
18	2,106.06	100,000.00	" 1942.
19	9,098.18	108,000.00	" 1913.
20	27,294.56	162,000.00	" 1903.
21	1,261.23	32,000.00	" 1914.
22	7,483.33	89,000.00	" 1904.
23	2,207.16	120,000.00	" 1924.
24	4,204.12	200,000.00	Dec. 15, 1924.

REPORT
OF THE
COMMISSIONERS OF SINKING FUNDS.

NEW BEDFORD, MASS.,
January 26, 1895.

At a meeting of the Commissioners of Sinking Funds
of the City of New Bedford, held this day, it was —

Voted, To adopt the foregoing statement of the Treasurer as the
report of the Commissioners of Sinking Funds of the City of New
Bedford, required by the statutes of Massachusetts to be made an-
nually to the City Council.

MORGAN ROTCH,
ANDREW R. PALMER,
WILLIAM H. PITMAN,
Commissioners.

IN BOARD OF ALDERMEN,

April 25, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

4 mo., 25, 1895.

Concurred.

WM. A. MACKIE, Clerk.

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1894—CITY DOCUMENT No. 9.

ANNUAL REPORT

OF THE

CHIEF OF POLICE

OF THE

CITY OF NEW BEDFORD,

FOR THE

YEAR ENDING DECEMBER 31, 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

REPORT.

CITY OF NEW BEDFORD, MASS.

OFFICE OF CHIEF OF POLICE,

December 31, 1894.

To His Honor the Mayor, and Gentlemen of the City Council.

In compliance with the City Ordinances, I have the honor to submit herewith my annual report, showing the condition of the department and giving a synopsis of the work done during the year ending December 31, 1894.

ARRESTS.

Number of arrests,	1,754
Males,	1,488
Females,	266
Americans,	780
Foreigners,	974
Non-residents,	318
Minors,	200
Commitments,	788
Arrests on warrants,	429

OFFENCES.

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Lewd and lascivious cohabitation,	1
Malicious mischief,	8
Maintaining common gambling house,	1
Night walking,	8
Non-support,	30
Neglected children,	7
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Obtaining goods under false pretences,	2
Peddling without license,	1
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Receiving stolen goods,	2
Selling liquor to minors,	2
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NATIVITY OF PRISONERS.

United States,	780
Arabia,	1
Austria,	1
British Provinces,	12
Canada,	174
Denmark,	1
England,	287
Finland,	5
Germany,	13
Greece,	2
Ireland,	331
Italy,	6
Norway,	4
Poland,	4
Portugal,	88
Russia,	5
Scotland,	22
Sweden,	8
Turkey,	1
Wales,	5
West Indies,	4
	<hr/>
	1,754

The cases were primarily disposed of as follows: 788 were committed to various institutions; 504 paid fines; 302 were continued; 79 were placed on probation; 9 were released by order of court; 20 were adjudged not guilty and were discharged; 15 were nol. prossed; 2 were laid on file; 5 were defaulted; 16 were found probably

guilty and bound over for the grand jury ; 6 were delivered to out of town officers ; 2 were delivered to the keeper of the workhouse ; 2 were delivered to the Superior court on capias ; 3 were bailed to appear in other jurisdictions ; 1 committed suicide in his cell.

MISCELLANEOUS BUSINESS.

Amount of property reported stolen in the city,	\$2,795.54
Amount of property reported recovered,	2,587.02
Accidents,	18
Buildings found open and secured,	89
Cases investigated,	2,328
Defective streets and sidewalks reported,	287
Defective hydrants reported,	2
Dangerous chimneys reported,	1
Dead bodies found,	2
Dangerous dogs reported,	16
Dog notices served,	312
Dogs killed,	23
Fire alarms given,	17
Fires extinguished without alarms,	9
Horses found cast,	19
Horses killed,	12
Intoxicated persons helped home,	4
Lost children found and restored,	145
Street obstructions reported,	1
Stray teams put up,	32
Sick and injured persons helped to station,	1
Sick and injured persons helped to hospital,	16
Sick and injured persons helped home,	29
Water reported running to waste,	44
Defective drains and vaults reported,	3
Disturbances suppressed,	263
Electric street lights reported out,	1,193

LODGERS.

Number of lodgers,	1,768
Males,	1,762
Females,	6
Americans,	934
Foreigners,	834

NATIVITY OF LODGERS.

United States,	934
British Provinces,	12
Canada,	27
England,	323
France,	5
Germany,	16
Ireland,	374
Norway,	3
Portugal,	8
Russia,	2
Scotland,	56
Sweden,	7
Wales,	1
Number non-residents,	1,767
Number of minors,	68

THE FORCE.

The department as now organized consists of one chief, two captains, seven lieutenants, two inspectors, fifty-four patrolmen, two wagon men, one emergency man, five regular housekeepers, three special housekeepers, two drivers, one clerk, one health officer, one matron and one janitor.

CHANGES.

During the year chief George Douglass and patrolman Albert J. Rose have been removed from the force. Ezekiel C. Gardiner has been appointed chief, and Robert N. Allen a patrolman. Lieutenant Arthur H. Jones has been reduced to patrolman, and patrolman Joseph B. Wing has been promoted to lieutenant.

DEATHS.

Patrolman Frederick Hussy died June 4, and housekeeper David G. Kirby died July 27. Both had served the city faithfully and well—the former for 17 years, five

months and three days as patrolman and lieutenant, and the latter as patrolman and housekeeper for 15 years, five months and 26 days. They had been in failing health for some time prior to their death. They were popular and much respected by their comrades. The remains of each were escorted to their graves by the force in uniform and with music.

ROSTER OF POLICE DEPARTMENT, 1894.

RANK.	NAMES.	AGE.	Weight.	Height.	
				Ft.	In.
Chief.	Ezekiel C. Gardiner.	55	152	5	9
Captain.	Timothy C. Allen.	42	180	5	11
"	James L. Wilber.	60	200	5	10
Lieutenant.	Lemuel D. Adams.	58	170	5	7
"	Seth E. Bryant.	55	158	5	9
"	Thomas W. Comstock.	50	170	5	10.
"	Thomas Fay.	36	155	5	8
"	Ellery Peirce.	64	172	5	6
"	Thomas J. Taft.	43	160	5	9
"	Joseph B. Wing.	48	173	6	
Inspector.	Franklin L. Hathaway.	42	225	5	11
"	John C. Parker.	35	195	5	7
Patrolman.	Allen, Edgar W.	40	185	5	10
"	Allen, Edward.	31	185	5	9
"	Allen, Robert N.	50	160	5	9½
"	Almond, Walter.	32	180	5	10
"	Arnett, Henry.	48	191	5	6
"	Arnett, James W.	55	170	5	6
"	Brownell, Milton A.	39	195	5	10
"	Callanan, Thomas F.	40	193	6	1
"	Cannavan, Patrick.	57	178	5	6
"	Clark, Ulysses L.	36	175	6	3
"	Cox, James M.	29	162	5	10
"	Dahoney, Thomas.	36	200	5	9
"	Demers, Frank E.	34	185	5	8
"	Deneen, Daniel.	32	189	5	9
"	Dodds, James.	41	225	6	1
"	Dumec, Peter.	57	180	5	10
"	Eldridge, Washington A.	51	200	6	
"	Enos, Frank.	27	170	5	9
"	Foley, Edmund.	26	195	5	11
"	Gendron, George E.	40	260	5	9
"	Gifford, Charles C.	49	200	5	11
"	Gray, Albert N.	28	187	5	8
"	Humphrey, Daniel J.	53	215	5	9
"	Ivey, James A.	38	180	5	10
"	Jones, Arthur H.	40	174	6	2
"	Lee, Allen L.	61	172	5	8
"	Mather, Joseph.	58	216	5	9
"	McBay, Charles L.	35	170	5	11
"	McCarthy, Jeremiah.	35	220	5	11
"	McDonnell, Patrick.	24	170	6	1
"	Mitchell, James.	48	202	5	9
"	Moynan, Robert.	47	193	6	¾
"	Murphy, Cornelius J.	49	160	5	7
"	Oliver, John F.	30	200	5	10
"	Paige, George W.	48	228	5	10

ROSTER OF POLICE DEPARTMENT.—*Continued.*

RANK.	NAMES.	AGE.	Weight.	Height.	
				Ft.	In.
Patrolman.	Pinkham, George W.	38	162	5	10
"	Raymond, Hiram E.	40	193	5	8
"	Rhodes, Henry W.	42	155	5	9
"	Rooks, John C.	37	260	6	
"	Roscoe, William E.	31	198	5	10
"	Russell, Eugene F.	44	250	5	11
"	Sisson, Joseph DeL.	70	218	5	8
"	Smith, Andrew J.	51	170	5	11
"	Sullivan, Timothy.	46	175	5	8
"	Sweeney, Daniel P.	32	238	5	11
"	Taber, Charles H.	48	176	5	9
"	Taber, Jeremiah M.	36	179	5	11
"	Telford, John.	40	199	6	2
"	Underwood, Willis C.	36	190	5	10
"	Vogel, George.	56	162	5	5
"	Weston, Stephen J.	44	208	5	10
"	Williams, John H.	48	177	5	8
"	Wilson, Thomas H.	58	182	5	7
"	Wixon, James A.	53	156	5	7
Wagon man.	Brady, John W.	49	255	5	9
"	Jones, John M.	51	188	5	8
Emergency man,					
Station 1.	Kennedy, Patrick.	59	180	5	8
Housekeeper.	Bumpus, Henry W.	68	200	5	6
"	Dayton, Luther M.	69	160	5	8
"	Mitchell, William H.	67	167	5	9
"	Russell, Elisha E.	64	197	5	7
"	Stevens, Henry.	59	182	5	8
Sp'l housekeep'rs	Jones, Isaac M.	64	173	5	10
"	Manchester, John B.	57	250	5	8
"	Robbins, Charles H.	72	188	5	8
Driver.	Jennings, Edward F.	55	157	5	7
"	McEnnis, Robert B.	38	150	5	9
Board of Health					
Officer.	Macomber, William E.				
Clerk.	West, Henry N.				
Matron.	Bullard, Margaret S.				
Janitor.	Drew, Moses C.				

STATION HOUSES.

The Central station (No. 1) has been very materially altered during the year. This alteration does not affect the portions occupied by this department as much as it does that occupied by the Third District Court. By the change the crowded condition of the main office on the first floor has been greatly relieved. Two rooms on the second floor have been fitted for this department — one for the chief's office and the other for the exclusive use of the inspectors. The latter is almost indispensable, as from the nature of their official duties they must do much private work which cannot be properly attended to in a public office. The clerk of the department now occupies the room formerly occupied as the chief's private office. This is a great improvement over the former arrangement, when he was forced to write at times amidst much talking and confusion in the main office. He fully appreciates the change.

The new arrangements on the second floor are very much appreciated by the clerk of the court, members of the bar and others having business with the court and with this department.

South station (No. 2). The sanitary condition of this station was found to be defective, owing to the inadequate ventilation of the water closet, which was located near the center of the building on the south side, in close proximity to the kitchen. The difficulty has been remedied by removing the closet to the cell room in the east part of the building, and the room vacated has been fitted for storage of rubber clothing, boots, etc.

West station (No. 3). Attention has been called to this dilapidated and inconveniently located structure for a number of years by my predecessors, as well as by myself.

All that it seems necessary for me to say at this time is that a personal inspection of the building and its location will convince almost anyone that the west part of the city needs a new police station.

Willis street station (No 4). On the lot connected with this station, which is intended to be used as a public pound, there is an old, dilapidated shed unfit for any use, even for the storage of wood and coal. The roof gives no protection from rain or snow. This shed should be abandoned and torn down, and a suitable structure erected for the shelter of impounded cattle.

Weld street station (No. 5). This station has been provided with additional heating apparatus. Heretofore it has been impossible to warm this station during very cold weather; but it is hoped the trouble has now been overcome.

WOMAN'S LOCKUP.

There has been but little change in this branch of the department during the year. It is still under the care of our efficient matron, Mrs. Margaret S. Bullard, whose continued untiring zeal for the welfare of those who are placed in her charge is highly appreciated by those who know of her work.

SIGNAL SYSTEM.

Early in the year it was deemed advisable to purchase a duplicate of the compound four-pen inking register, as the old one had become somewhat worn and needed repairing; also to have a spare register on hand to put in while the other was out of commission, so as not to throw the entire system temporarily out of service. Accordingly one was bought and attached, and the old one was

repaired and is now ready for use when required. All this at a cost of only \$175. The entire system is now in a satisfactory condition.

The number of calls during the year ending December 31, 1894, were as follows:—

Duty calls,	256,090
Telephone calls,	13,602
Wagon calls,	915
	<hr/>
	270,607

STABLE.

A substantial addition has been made to this building by an extension on the east end. In this addition we now keep the ambulance, which materially relieves the crowded condition of the wagon room in the main building. There is also ample room in this addition for two carriages, a harness room, blanket room, and convenient floor space for drying stall bedding.

The department is now equipped with three horses, one patrol wagon, one prisoners' van, one ambulance, one top buggy, and one double-seated carriage.

I would recommend the removal of a sufficient length of curbing on the east side of South Second street to allow the easy ingress and egress of our carriages while passing to and from our carriage room across the sidewalk, without danger to the springs and wheels.

THE DEPARTMENT.

I feel justified in saying that no fair-minded citizen can truthfully say the department was ever in better or more efficient condition in all respects than at present, or ever successfully accomplished more for the peace and good order of the entire community than has been done this

year. Harmony, discipline and good feeling have prevailed throughout the department, newspaper criticism to the contrary notwithstanding.

CONCLUSION.

In concluding this report I desire to extend to His Honor the Mayor, the Committee on Police, and the other gentlemen of the City Council, my sincere thanks for their uniform courtesy.

I desire to commend to your attention and approval the unfaltering and judicious performance of duty by the officers and members of our force, and extend to them my personal appreciation, believing that the public does not sufficiently realize how well they have acquitted themselves amid the trying circumstances in which their duties place them.

Respectfully submitted.

EZEKIEL C. GARDINER,

Chief of Police.

IN BOARD OF ALDERMEN,

January 10, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

1 mo., 10, 1895.

Concurred.

WILLIAM A. MACKIE, Clerk.

1894—CITY DOCUMENT No. 10.

SIXTH ANNUAL REPORT

OF THE

BOARD OF PUBLIC WORKS

OF THE

CITY OF NEW BEDFORD

TO THE

CITY COUNCIL,

TOGETHER WITH THE REPORT OF THE

SUPERINTENDENT OF PUBLIC WORKS

TO THE BOARD,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

BOARD OF PUBLIC WORKS.

Organized May 3, 1889, under Chapter 167 of the Acts
and Resolves of 1889.

ORGANIZATION FOR 1894.

STEPHEN A. BROWNELL, Mayor, Chairman.

JOHN H. BARROWS, President of the Common Council.

MORGAN ROTCH, appointed April 11, 1889, reappointed April 14,
1892; term expires May, 1895.

GEORGE F. BARTLETT, appointed July 13, 1891, reappointed May
7, 1894; term expires May, 1897.

SAVORY C. HATHAWAY, appointed April 28, 1893; term expires
May, 1896.

The above Board, under the same act, constitutes the
Park Commissioners.

CLERK.

DANIEL B. LEONARD, City Clerk.

WILLIAM S. COOK, Assistant City Clerk.

SUPERINTENDENT OF PUBLIC WORKS.

ALBERT B. DRAKE, Civil Engineer.

ORGANIZATION FOR 1895.

DAVID L. PARKER, Mayor, Chairman.

OLIVER PRESCOTT, JR., President of the Common Council.

MORGAN ROTCH, term expires May, 1895.

GEORGE F. BARTLETT, term expires May, 1897.

SAVORY C. HATHAWAY, term expires May, 1896.

CLERK.

DANIEL B. LEONARD, City Clerk.

WILLIAM S. COOK, Assistant City Clerk.

SUPERINTENDENT OF PUBLIC WORKS.

ALBERT B. DRAKE, Civil Engineer.

1894.

NEW BEDFORD,
MASS.

Population, assessors' estimate, 55,590.

Valuation, \$51,434,925.

120 miles of accepted streets.

Two bridges over the Acushnet river: 7-9 old bridge maintained by New Bedford; 3-4 Coggeshall street bridge maintained by New Bedford.

1.75 miles of block paving, an area of 23,138 square yards.

16.29 miles of cobble paving, an area of 207,214 square yards.

31.94 miles of macadam paving, an area of 399,648 square yards.

56.52 miles of earth streets.

68.10 miles of curbing.

36.22 miles of flagging, an area of 110,041 square yards.

22.78 miles of concrete, an area of 99,582 square yards.

0.11 miles of granolithic, an area of 601 square yards.

49.89 miles of sewer from 8 to 72 inches diameter.

\$846,547.32 cost of sewer system to date.

604 catch-basins.

136 eye-holes.

430 manholes.

26 sewer outlets into Acushnet river.

Five sewer outlets into Clark's Cove.

REPORT.

BOARD OF PUBLIC WORKS,
ODD FELLOWS' BUILDING,
December 31, 1894.

To the Honorable the City Council of the City of New Bedford.

GENTLEMEN:—The Board of Public Works herewith submit their sixth annual Report for the year ending December 31, 1894.

At the first meeting of the year 1894 the Board organized with Hon. Stephen A. Brownell, Mayor, Chairman; John H. Barrows, President of the Common Council; Morgan Rotch, George F. Bartlett and Savory C. Hathaway.

George F. Bartlett was reappointed and confirmed as a member of the Board May 7, 1894.

On May 7, 1894, the Board met and organized as prescribed by law.

Albert B. Drake was reelected Superintendent of Public Works.

Fifty-eight meetings of record have been held, exclusive of executive meetings, hearings and visits to localities calling for improvements.

Mr. William S. Cook, Assistant City Clerk, has acted as Clerk of the Board throughout the year.

The added experience of another year brings us more fully to the conclusion that the sum of money annually provided for the extension of improvements must be cur-

tailed unless we abandon the attempt to maintain and and repair our streets.

The item of maintenance and repairs is continually increasing, with no equal increase in the sum available for such work.

The reasons are many. The sums annually appropriated are entirely insufficient to properly maintain and repair the streets, and yet the new work called for must be met at the expense of the maintenance account.

In the appropriation for highways and streets the cost of cleaning streets and of collecting ashes and rubbish are included. You must see from this that to annually expend from \$12,000 to \$15,000 of the appropriation for health and cleanliness makes serious inroads on the possible extension of our highways to meet public demand.

The extent of our improved pavements at this date cannot be replaced for less than \$1,000,000. In addition, the streets that have been opened as dirt roads and streets with cinder and gravel walks could not be replaced for less than \$400,000.

On this investment of \$1,400,000 it would be a poor business concern indeed that did not reckon at least 8 per cent. for maintenance and repairs alone. It should be 10 per cent. at least with the present temporary nature of our improvements. The life of all our present improvements would not exceed an average of twelve years, and might not exceed nine years. Eight per cent. would call for an appropriation for maintenance and repairs only of \$112,000. Ten per cent. calls for an appropriation of \$140,000. For our new work what should be added?

To build a mile of street complete, with concrete walk, curbing, paved gutters and macadam roadway, the cost would not be far from \$20,000.

The average increase in length of accepted streets during the past seventeen years is about two and one-half miles per

year. The average increase in length of accepted streets during the past six years is about four miles per year.

At the rate of increase during the past six years the department should have had a sum of not less than \$80,000 per year for new work in order simply to keep pace with what the public demands.

We would ask special consideration for this subject. We would also remind you that our city has nearly doubled its population and business in the past dozen years.

We would call your attention to the following table of rates of appropriations for street use during the past fifteen years : —

YEAR.	Miles of Accepted Streets.	Net Expenditures Highways and Streets.	Allowance Per Mile of Accepted Streets.
1880	78.57	\$76,016.00	\$967.00
1881	80.41	66,195.00	823.00
1882	82.63	76,896.00	931.00
1883	84.30	75,348.00	894.00
1884	86.60	81,679.00	943.00
1885	89.35	84,861.00	950.00
1886	91.42	81,972.00	897.00
1887	92.67	78,985.00	852.00
1888	97.43	90,752.00	931.00
1889	100.05	77,991.00	779.00
1890	103.74	104,142.00	1,004.00
1891	107.58	109,917.00	1,022.00
1892	113.00	132,653.00	1,174.00
1893	117.6	115,131.00	979.00
1894	120.00	101,263.00	843.00
			\$13,989.00

Average per mile per year, \$932.

At the end of the year, with the advice of the Superintendent and the consent of your honorable body, we invested the balance of the appropriation for highways and streets and general sewers in new machinery and labor saving appliances.

We believe it to be true economy to enlarge the capacity of our macadam plant at the city stable. This plant is situated about the centre of the city north and south, and directly in the centre of the territory provided with macadam streets.

The Superintendent had repeatedly urged the purchase of a new crusher, on account of the costly repairs necessary with the old machine.

The engine and boiler are of the best kind, and we expect to have as fine and economical a plant as any city in the East.

The purchase of a new roller was an imperative necessity.

With the general sewers money a Carson excavator has been purchased to go with our hoisting engine. We believe this machine will meet with your approval, as you have seen a similar style of machine working on Union and William streets sewers in 1893.

In the purchase of the extensible iron sewer braces we believe the city will be benefited greatly. Superintendent Drake had urged this purchase on economical grounds, preventing the waste of lumber necessary with the timber braces and the attendant labor.

We ask your consideration of the carefully prepared and thorough report of the committee on underground wires which is appended.

This report is the combined result of much thorough and careful investigation on the part of a committee from this Board—Hon. Stephen A. Brownell, Mayor, and chairman, and Albert B. Drake, Superintendent of Public Works, together with Edmund Wood, Chairman of the Board of Trade committee on underground wires, — who have agreed upon this report as presenting the results of their research.

While endorsing the report of the committee on underground wires, we would call your careful attention to the report of the Superintendent on the whole general subject.

Under the head of "Municipal Franchises" Superintendent Drake fully sets forth his views on this important subject.

Mr. Drake has always taken a determined stand in this matter, and having been a member of the committee of the Board to investigate the subject of underground wires this year, we would recommend a consideration of his report in addition to the report of the committee. We do not feel prepared at present to fully endorse the ideas advanced by the Superintendent, but they should be read with care and consideration. Mr. Drake has devoted much time to the study and investigation of this subject.

The extended remarks of the Superintendent on the assessment of betterments are worthy of your consideration.

We would recommend the acceptance of the betterment laws of Massachusetts. This will place the Board in a position to make use of the law in many places where we are unable to meet the public demands at present.

The remarks of the Superintendent on street pavements should be read with interest, and attention given to the extent and area of our street improvements as set forth in the summary presented.

We present a summary of the appropriations and expenditures of the year 1894 and a comparative statement of the expenditures of the past six years.

Respectfully submitted.

STEPHEN A. BROWNELL, Chairman.

JOHN H. BARROWS.

MORGAN ROTCH.

GEORGE F. BARTLETT.

SAVORY C. HATHAWAY.

APPROPRIATIONS AND EXPENDITURES, 1894.

	Appropriations.	Expended.
Highways and streets,	\$101,263.49	\$101,263.49
Collecting ashes,	7,000.00	6,623.17
General sewers,	15,000.00	14,514.60
New Bedford and Fairhaven bridge,	3,500.00	2,789.25
Moving snow and ice,	1,500.00	1,500.00
Sears court layout, etc.,	1,000.00	538.00
	\$129,263.49	\$127,228.51
Acushnet avenue sewer No. 19,	600.00	291.96
Acushnet avenue sewer lowered north of Pope street,	550.00	106.16
Beetle street sewer No. 2,	2,000.00	1,115.17
Belleville avenue sewer No. 4,	1,000.00	649.41
Belleville avenue sewer No. 5,	200.00	122.09
Bonney street sewer,	25,000.00	24,936.32
Central engine house drain,	300.00	300.00
Chancery street sewer,	150.00	144.73
Contemplated Copper street sewer,	2,000.00	2,000.00
Clark street sewer No. 3,	2,000.00	1,081.62
Davis street sewer,	1,763.22	1,763.22
Elm street sewer,	350.00	147.15
Front and Commercial street sewer,	1,996.00	1,508.80
Market and Pleasant street sewer,	1,358.18	329.45
Maple street sewer,	2,536.06	2,536.06
Mitchell street sewer,	1,200.00	644.93
Purchase street sewer No. 10,	1,575.00	1,173.29
Round street sewer,	1,000.00	230.89
Washburn street sewer,	1,500.00	707.21
	\$176,341.95	\$167,016.97
Parks and squares, balance of 1893 brought forward,	\$1,879.81	
Transferred to Park Commission acc't,	1,202.99	
Net amount paid out to April 28, 1894.	\$676.82	

HIGHWAYS AND STREETS.

YEAR.	Net Expenditure Appropriation for Year.	New Work.	Maintenance and Repairs.	Stock on Hand Increased.	Stock on Hand Decreased.	Working Material Left Over for Following Year.
1889	\$77,991.01	\$39,211.24	\$33,788.42	\$4,991.35		\$1,824.90
1890	104,142.79	59,493.72	37,840.33	6,808.74		6,013.63
1891	109,917.01	68,794.82	42,283.06		\$1,160.87	2,271.65
1892	132,653.02	66,566.13	62,044.30	4,042.59		10,099.23
1893	115,131.71	71,279.73	54,251.22		10,399.24	3,252.98
1894	101,263.49	35,023.85	62,700.69	3,538.95		6,798.68

GENERAL SEWERS.

YEAR.	Net Expenditure of Appropriation for Year.		New Work.	Maintenance and Repair.	Stock on Hand Decreased.	Working Material Left Over for Following Year.
1889	\$25,761.28	\$9,013.00	\$14,332.48	\$2,415.80		\$3,020.77
1890	32,089.43	16,772.65	13,424.20	1,892.58		4,641.24
1891	30,398.14	15,067.52	11,454.19	3,876.43		7,197.40
1892	28,651.68	9,386.39	15,099.40	4,165.89		6,590.46
1893	13,836.20	5,637.77	9,866.66		\$1,668.23	4,682.16
1894	14,714.60	4,508.70	9,811.91	393.99		4,908.61

NEW SEWERS.

1889,	\$36,022.28
1890,	26,525.28
1891,	82,555.83
1892,	66,743.36
1893,	36,779.10
1894,	39,815.15

Report of the Superintendent.

OFFICE OF SUPERINTENDENT,
ODD FELLOWS' BUILDING,
New Bedford, Mass.

To the Board of Public Works of the City of New Bedford.

GENTLEMEN:—I have the pleasure of submitting the sixth annual Report of the work of this department for the year ending December 31, 1894.

I would call particular attention to the interesting details of the work of the department as comparatively set forth, which may prove of great help in the future. These tables are not based on supposition, but have been made up from actual conditions.

In the suggestions of improvements I have tried to point out what seems to me to be calling most urgently for attention.

HIGHWAYS AND STREETS.

The accounts of this department are open to the inspection of any citizen. The accounts have been much simplified this year. The handling of credits due the department still remains clumsy and misleading. As carried out at present, credits due this department are partially credited to this department and partially credited to the account of unappropriated funds. At any time the Board can ask for these credits, and if the City Council so decides, the sum called for is transferred from

the account of unappropriated funds to the various accounts. This makes a false impression on many people.

I would suggest that the intended object could be obtained more simply, by returning the credits of the year to the department during the year. This would be a simple, straight, business method. At the close of the year the books could be closed, and all credits due the department could then be turned over to unappropriated funds. This would also be a business method.

Under the present system we are never able to figure with certainty the standing of several accounts until after consultation with the Auditor.

I offer this as a suggestion looking to the simpler and more direct method of keeping the accounts.

I wish to enter a protest against the ill-advised attempts to do work on the streets out of its proper season. Take the case in hand the last two months. It is well known among engineers that work subjected to the influence of frost, constructed after the first of November, will not preserve its form and shape as well as work thoroughly compacted and settled before the frost enters the ground. The weeks of good weather when work could have been done to advantage were lost, and then the department was called into action with no working supplies, such as curbing or paving blocks, on hand.

In addition to what supplies the local contractor for curbing and crosswalks could furnish, J. B. Sullivan was called on for \$870 worth of curbing and curbing corners in addition to his block paving.

The crushers were run every day of fair weather up to the present time. We have several macadamized streets unfinished which will be rolled at the earliest opportunity.

The curbing arrived so slowly from the contractors that we only succeeded in laying Howland street curbing and blocks after the ground had frozen.

MUNICIPAL FRANCHISES.

During the past year I had the pleasure of being one of a committee of three to look into the subject of underground wires. This committee presented a report, which you have on file, and which I would suggest that you publish with your report to the City Council.

Believing thoroughly in municipal ownership of all obstructions that encumber the streets, both above and below ground, I believe that this ownership should be secured either by building, or better yet, by allowing the company or corporation that may desire to build a permanent obstruction of this nature in the highway to do so at its expense; the obstruction to be allowed under the absolute control and direction of the city, and a certain per cent. of the gross receipts of the corporation to be paid to the city for the use of the valuable rights in the public highways; or, in lieu of payment by the corporation for this valuable right, the corporation shall agree to give absolutely to the city the structure they may have erected and maintained at the expiration of not more than twenty years.

Ten years' use of such valuable rights without paying should certainly entitle the city to the property. After the twenty years' limit the city should receive a fair percentage of the gross receipts of the corporation for continued use of said rights.

The street railway tracks should be owned, rebuilt and repaired by the city, the company paying the city enough from their gross receipts to do all such work, the city to have a fair income from the company in addition. Unquestionably the city should have this income, at least sufficient to cover the expense caused the city by the maintenance of the tracks in the streets. The company operating the road under the control and direction of the

proper authority should be given a preference in renewing the operating lease in the matter of rolling stock, but the lease to operate the road should be open to all at public sale every ten years.

The contracting party operating the road to be under the absolute direction and control of the city as to running time, rate of fare and matters of accommodation to the public. Twenty years is as long as any granting of public right should extend.

The income that should be returning to the department from corporations using the public highways for their benefit and profit would greatly help to maintain our highways. This would be a direct return to the public.

I would suggest that each period of twenty years would certainly increase the receipts from such sources.

The corporations erecting and maintaining poles for the support of wires in our streets should pay for this right. The argument always advanced that the payment for these privileges would hopelessly bankrupt the corporations, or increase the rates to patrons, is simply good argument and nothing more. It is a great help to urge the removing of the wires from the surface of the streets. It should also be borne in mind that the cost of maintaining these wires under ground is very much less than it is overhead.

Persons maintaining signs and awnings in the streets for commercial gain and profit, to the disfigurement of our highways, should pay a fee for each year's maintainance, if they are allowed in the future. Projecting signs are certainly no ornament, and are a menace to the public. The fact remains that the average building in this city covers every inch of its property immediately at the street line, even with plenty of room in the rear, and then the owners expect to occupy the space over the sidewalk for personal gain, regardless of their fellow citizens.

We have in our city highways, as obstructions project-

ing above the surface, about 5,000 shade trees and nearly as many more wired poles; over 1,800 hitching posts, besides fire hydrants, drinking fountains, etc. With the addition to the above of swinging signs, miles of telegraph, telephone and electric wires of all kinds, it hardly seems strange to be reminded of the old sailor's statement, "It is safer afloat than ashore."

The argument that the public receives the benefits seems to fail of confirmation when I remind you of the constant expense to the city caused by the maintenance of these commercial obstructions, and the ever increasing wealth of the corporations who control these rights.

ASSESSMENT OF BETTERMENTS.

In the matter of street pavements in general, I would call your attention to our failure to keep pace with the progressive spirit of the times. We are behind cities of far less wealth and prosperity in the adoption and construction of improved highways. This is due to a combination of many causes.

First. Limited appropriations and the ever expressed determination of future reduction.

Second. The ever increasing item of repairs, which we fail to meet year after year, therefore constantly increasing.

Third. To an entire lack of income from any betterments.

Fourth. To a prevailing idea that the highways and streets appropriation is the proper department to cut down.

Fifth. To the fact that such an indication as made in 1892, toward catching up with the never ending repairs, and keeping up, is at once set down as extravagance and must be curtailed. It has been curtailed. The table of

appropriations on page 11 will illustrate the limited amounts with which this department has had to face the constantly increasing demands for improvements.

The city of Providence, R. I., has recently published a report of its committee on highways relative to the building and paving of streets, and the method of paying therefor in other cities, and the present condition of the highway appropriation. It is a report of great interest to all cities, confronted as we are at present, with the very problem that this report is based upon. Its conclusions are especially interesting at this time.

“The situation then that presents itself for the consideration of the City Council may be said to be :—

First. Either the city of Providence may discontinue the building of new highways ; or,

Second. The city must obtain authority to hire half a million dollars for highway purposes ; or,

Third. If the City Council decides that it will continue ordering new highway work, but that it will not borrow money therefor, then authority must be obtained from the General Assembly to enable the City Council to assess the cost of building highways upon the property benefited.”

Referring to a detailed appendix of reports from twenty-seven cities it says : “This appendix discloses but one city in the United States that pays for its highway work in the same manner that is pursued in Providence.” This refers to Nashville, Tenn. We could have furnished a statement similar to the one from Nashville.

The restless and constant agitation by the public for something better in the line of permanent improvements shows conclusively that it is not satisfied with the present shabby condition of our highways and wish something better. To many this immediately brings up the question of cost. What increase will it make in taxes? The ordinary citizen usually puts his thoughts into form

somewhat after this style: "I am willing to pay the whole or part of the cost of street improvements in front of my own property, but I decidedly object to paying for any improvement on Water street, Purchase street, County street, French avenue, or County road. The street in front of my property needs fixing bad, but nothing is ever done to it."

With the progressive, stirring citizen this proposition to assess the cost of improvement will be a gratification. He will know just what he can have, just how much it will cost him, and that he can have just as good a street in front of his property as his neighbor.

The property holder who can secure better means of communication with all parts of the city realizes the benefit in the increased value of his property, in the increased health of his family, and the cheapening of the expense of communication.

The payment of betterments is not such a burden as would appear at first thought. It is usually arranged to be paid in one, five or ten annual instalments as desired.

I do not know of an instance where street improvements have been made that the value of the property has not advanced.

STREET PAVEMENTS.

The ideal street pavement for highways should fulfil many conditions. It should provide a surface over which burdens can be hauled with the least resistance; that can be readily cleaned, and at the same time give a good foothold for the horses. It should be of such a surface as to admit of persons crossing safely and conveniently at any point. It should be of such material as to preserve the above qualities and admit of being replaced in good condition after being dug up for the various repairs that are

necessary. It should be as durable as economy will permit. It should preserve these conditions in direct ratio to the traffic and usage to which it may be subjected.

On streets subjected to our heaviest traffic these conditions should be met only by granite blocks with pitched joints laid upon a concrete foundation of from six to nine inches, or upon a gravel foundation only with pitched or gravel joints, as economy shall render either necessary.

On streets of medium traffic and residence streets the ideal can be secured in sheet asphalt, with concrete foundation, upon streets with grades not exceeding three feet in 100. The introduction of sheet asphalt pavement will probably be attended by some unsatisfactory work, for this pavement has to be like the old woman's griddle cakes "mixed just right, and cooked just enough, not too much and not too little."

The smooth, easily cleaned asphalt surfaces giving forth only such sound as arises from the click of the horses' shoes upon the pavement would certainly suggest a heavenly quiet to our citizens who are used to cobble paved streets.

In the recent trip to Buffalo with Mr. Hathaway I was much interested in investigating this subject. Buffalo has about 170 miles of smooth, quiet asphalt streets. Brick has lately been brought forward as suitable for this purpose, but I should not recommend its adoption, judging from my own research and observation. The common complaint of its noisy qualities seems to me to be well worth considering, for at the high tension to which the nerves of the average American is strung the constant presence of sharp noises from one source must make sad work with nervous people. Bricks are also subject to the objection of a lack of uniform quality. The density and wearing qualities varying greatly in bricks from the same kiln.

On side streets with very light travel or pleasure driving our macadam roads are good and economical. We have one style of paving that should be condemned and replaced with other material whenever possible. I refer to cobble paving, of which we are the unfortunate possessors of $16\frac{29}{100}$ miles. This expensive paving should be discontinued. The first cost is light, but the repairs are enormously out of proportion to its cost.

The expense to the city treasury is a small item compared to what the cost must be to individuals who maintain the vehicles that travel constantly over this style of paving.

Major J. W. Howard, C. E., member American Society Civil Engineers, in an address delivered at the joint conference on municipal government and improvements in New York last May, thus refers to cobble paving: —

“Cobble or boulder stones make worthless pavements; they are noisy, uneven, unsightly and unhealthy. They were abandoned in Europe almost a century ago. Macauley, in his history, describes how they were of great financial and sanitary injury in London. Strange to say, some parts of Brooklyn and a very few other cities still indulge in this barbarous street covering.”

A movement is under way in some cities looking to the reduction of the noises arising from certain pavements, especially those noisy pavements that seem to be placed in residential portions of the city with no regard whatever for the nervous systems of the inhabitants.

NEW THOROUGHFARE.

A new thoroughfare is very much needed at present. Nearly all the heavy teaming of the city is carried on along the streets nearest the river. As a natural result,

almost all the teaming to the freight depot from the south must go through Acushnet avenue from Maxfield street north.

North of Commercial and Union streets there are no streets admitting of a very easy climb from Front and Water streets to Acushnet avenue.

A large amount of heavy teaming is done in the section lying east of Acushnet avenue from Union street north to Maxfield street. Heavy loads cannot be hauled up the sharp grades that are encountered in this section without taking roundabout routes in search of easy grades.

North of Middle street no grade exists light enough to admit of heavy loads without abusing horses. Even with the most severe abuse delay and loss of time is caused. It takes the life out of the horses and shortens their days of usefulness. For foot and carriage travel at present it is a very roundabout way to reach the depot from this section by any public way.

To relieve this condition I would suggest a remedy beneficial to the railroad and the public. I would suggest a street fifty feet wide on the west side of the railroad from the junction of Hillman and Water streets to a junction with Second street, and sixty feet wide from that point to the junction of Acushnet avenue and Pearl streets.

To accomplish this result in a proper manner the New York, New Haven & Hartford Railroad should move their tracks to the east a sufficient distance to give a clear width of forty feet for the street between the northeast corner of the New Bedford Manufacturing Company mill and the railroad fence at the junction of Hillman and Water streets.

This can be done at a comparatively small cost, as this company now maintain two gatemen at this point. The railroad is at present paying for these gatemen over 5 per

cent. interest on \$20,000, and there is a constant liability of accidents.

From this point the road should extend along the west side of the tracks to Maxfield street, thence in a direct line for the corner of Acushnet avenue and Pearl street. Second street should be extended straight ahead to meet the proposed street.

Anticipating questions on this subject, I would present two views as I see them. The advantages are many.

First. Abolishing two dangerous crossings of public highways. This grade crossing can be abolished as stated and will not interfere in any manner with the future possible arrangements in abolishing grade crossings. If the tracks remain at the present grade, this separation of street and track should be undertaken for public safety. In the event of the adoption of the proposition to elevate the railroad on trestle work across the front of the city the same arrangement of street and tracks would be proper and economical.

Second. Relieving the crowded condition of Acushnet avenue.

Third. Affording a convenient and direct street with no grade sufficient to offer inconveniences in hauling the heaviest of loads.

Fourth. Affording a near and direct route for carriage and foot travel from the large manufacturing and business district east of Acushnet avenue to the depot.

Fifth. Affording convenience to the public.

Sixth. Quickening transportation.

Seventh. Cheapening transportation.

Eighth. Increasing the quantity transported, at least one way.

The first five reasons seem to me to call for no comment whatever. The sixth, seventh and eighth must appeal at once to all business men.

The only disadvantages I see worthy of note are : —

First. The expense.

Second. The objections of the New York, New Haven & Hartford Railroad.

As to the first, this cannot be heavy, for the benefits derived by all abutters must be recognized at once. The benefits to the public will be very great.

As to the second, I would call your attention to the constant expense of two gate tenders at the corner of Hillman and Water streets. The expense of shifting the tracks cannot be large. Other damages must be light, as the property affected will be most benefited. Moving of buildings will not be a large item. The railroad land north of Maxfield street is very little used except to store empty cars. I doubt very much if such a use of the property should stand in the way of public needs. And, lastly, I shall be much astonished if the railroad fails to find other reasons to approve of the change.

I bring this to your attention as being worthy of consideration and as an improvement that will be greatly appreciated by the public.

SIDEWALKS.

The ideal sidewalk is a smooth, even surface, necessarily on a slight incline to admit of draining the surface. Safe for the public to walk over in all its parts without danger to life or limb. A surface easily cleaned, and last but not least, a surface that does not require to be repaired too often.

A surface that requires to be repaired very frequently must necessarily be in a dangerous condition a great part of the time, therefore not such a surface as should be required.

The wretched condition of our flag sidewalks in general is a subject that I must call to your attention. We have

now $36\frac{22}{100}$ miles of flagwalk, a large part of which is far from being in a proper condition. I need only ask you to observe the broken and uneven surface of flagwalks around the central portion of the city in any direction you may travel.

I would advocate the abandoning of tar as the cementing mixture of all future sidewalks and crosswalks. I would strongly recommend the introduction and use of asphalt.

Our concrete walks have been pushed out and added to until we now have $23\frac{29}{100}$ miles of such walk, a total of 99,582 square yards.

Asphalt walks will cost more, but to this objection I would say that they are best, for we cannot afford to have our streets in a constant state of upheaval for repairs, or at the same time to have the sidewalks dangerous for pedestrians to walk upon.

CURBING.

The curbing furnished this year has been delivered altogether too slowly. While a slight decrease in price looked attractive at first, this was completely offset by the actual outlay due to this account. If the curbing can be delivered in sufficient quantity to meet the work, it should be done. Part of the time we only had what one team could bring into the city, averaging not over thirty feet per day.

I would suggest in the next contract a specified time for the delivery of fixed quantities at certain dates, and that the last delivery shall not be later than October 1 of each year.

MACADAM.

The amount of work accomplished during the past year has been far behind the demands made on the department.

The suspension of work for several weeks during the best weather of the working season is a mistake, only made more pronounced by the effort to do the work out of season, such as has been attempted during the past month (December).

In my last report I called your attention to the manner in which we were drifting behind in the matter of repairing macadam streets. This hardly needs to be supplemented now by the statement that it can be readily applied to the present situation. This is partially brought about by the costly effort to keep macadam pavement upon the streets subjected to heavy and constantly increasing traffic.

The time is fast approaching when main avenues of travel, such as Pleasant street and Fifth street, must be given up to a more substantial method of pavement.

Macadam, at best, for city streets is only a step beyond a gravel road. On any street of light grades and subjected to light travel only a macadam roadway seems to meet the conditions very well, if systematically sprinkled. On the streets subjected to much travel the wearing of the surface is constant, resulting in the removing of large quantities of debris from the gutters. If not well sprinkled, this last condition produces dust and dirt without end. If too well sprinkled, a condition of mud and muddy crosswalks are the rule rather than the exception.

As we seldom have the happy medium, I will not call your attention to it, unless it be to urge upon you the need of the work of sprinkling being done in a systematic and proper manner, producing a good surface to drive over, not dusty, not muddy, and not affecting the crossings to the inconvenience of pedestrians.

In some cities of the Commonwealth the city sprinkles the streets in a systematic manner. This seems to be the only way to control the watering of streets with any satisfaction.

The city of Cambridge has about forty watering carts. In some cities the street railway companies sprinkle the streets through which the cars run

The much longed for increase in the capacity of the crushing plant seems to be an assured fact, as we begin the year with an engine, boiler and crusher paid for. The erection of this plant, together with the new steam road roller purchased this year, to be delivered early in the spring, should place this department in good shape for accomplishing a great deal of work, if the appropriations only equal the expectations.

The portable crusher standing upon the lot on Hicks street was used for that section the early part of the season. From this place it was taken to the old location, at the property of the Howland Mill Corporation, where it still remains, the last work being the building of a temporary road eighteen feet wide on Orchard street, from Rivet to Cove road, for the use of the Rotch and Howland Mills and the travel to the southwest into Dartmouth.

We now have $31\frac{9.4}{100}$ miles of macadam and are sadly behind in repairs. At least 15 per cent. or $4\frac{7.0}{100}$ miles should be repaired each year, the new work to be added as it can be when appropriations are large.

I would suggest that macadam on a residence street not subjected to heavy travel will last for years, where a dirt road would be a constant source of expense.

When I consult the list of main streets recommended for repairs a year ago I see a great deal of work. If the amount of money appropriated during the year had only been appropriated or assured early in the year, much more might have been accomplished in the line of macadam roads.

After starting the work in the spring we ran the crushers just as long as the appropriation would admit. The

centre crusher was shut down August 11, 1894, and the portable crusher July 21, 1894. They were started immediately upon the receipt of the new appropriation, September 10, 1894. Our output of crushed stone has been limited by the size and condition of our crushers.

CENTRE CRUSHER.

5,764 tons of stone at 25.15 cents per ton.

9,004 tons of stone at 41.18 cents per ton.

14,768 tons of stone crushed at an average cost of 25.95 cents per ton, exclusive of the cost of the stone.

PORTABLE CRUSHER.

128 tons of stone, Hicks street, east of Acushnet avenue, at 30.62 cents per ton.

2,241 tons of stone, Hicks street, east of Acushnet avenue, at 43.52 cents per ton.

1,000 tons of stone, Crapo's lane, west of Bolton road, at 42.39 cents per ton.

9,627 tons of stone crushed at an average cost of 36.29 cents, exclusive of cost of stone.

STREETS GRADED.

Under this head I will not refer to the amount of work accomplished, but would call your attention to the need of some more direct and quicker method of keeping up with the growth of the city.

The adoption of the betterment law as applying to all street improvements would admit of the department keeping somewhat nearer the requirements, the general public receiving the benefits.

BLOCK PAVING.

Owing to the lateness of the season, when sufficient money was appropriated, we were unable to pave Howland street before the ground froze.

This frost has been removed, a foundation of beach sand spread, and the blocks laid as best we could. The work has promptly frozen again, and not until spring will we be able to see what the condition will be. Work done at this season of the year can be called neither a sample nor an economical piece of work.

Twenty-nine thousand four hundred and fifteen block have been accumulated at the foot of Howland street and upon the stable lot for use in 1895. I would suggest their use upon Water street, when the abutters will give consent to raise their buildings to an elevation sufficient to allow of a proper grade being used of a sufficient elevation above high tide.

I would suggest that, in my judgment at least, 200,000 blocks should be used upon Water street in 1895. Cost: laid on sand, \$25,000, and \$45,000 on concrete with pitched joints.

Now that the sewer has been laid in Acushnet avenue from Campbell to Willis streets, I would suggest that it be paved with blocks early in the year.

The block paving in Union street, from Fourth to Sixth streets, where the street has been dug up for sewer, water and gas pipes, should be relaid early in the season; and block paving should be laid on Union street as far east as Water street.

The cost of maintaining cobble paving in all these streets is excessive.

COBBLE PAVING.

While we have not decreased the area of cobble paving in our city, I must say that I feel pleased at the evident intention not to increase it.

I refer you to the table of repairs for the cost of maintenance. I would again call your attention to the cost of repairing cobbles on Water street.

Length about 8,800 feet.			
Repair to cobble paving,	1889,		\$1,799.41
"	"	1890,	79.08
"	"	1891,	1,687.50
"	"	1892,	1,308.05
"	"	1893,	1,670.45
"	"	1894,	441.82

This does not show the expense to the owners of the vehicles using the street, who pay the bills for repairs to their carriages and wagons, or the great wear and tear on horse flesh.

CITY YARD.

The work of the department of the City Yard has been carried forward as usual.

In the stable the changes have been confined to the disposal of the old and crippled horses at the time when it was necessary to shut down the work during the summer.

The blacksmith and carpenter shops continue to show the economy I claimed for them in the past, and which I hope to make more efficient and economical in the future. A band saw should be introduced in the carpenter shop.

The machine shop must remain a crippled establishment as long as we are not provided with the tools absolutely necessary. A new lathe with attachments would be a wise and economical investment.

The tool house has about all the tools it can conveniently provide with storage room. The sheds are entirely inadequate for the needs of the department, and should be increased by building an addition on the west lot.

The old roller has performed about all it can until wheels, axle and gears are renewed and the engine overhauled. The boiler seems to be all right. The new Harrisburg roller is expected in March, 1895.

The new engine, boiler and crusher are expected early in 1895. The boiler power will be sufficient to heat all the buildings with steam, replacing the eight stoves which we are forced to run in heating the premises at present.

I would recommend the purchase of a small engine and dynamo to run the electric lights in the buildings at the yard. It has been suggested by a member of the City Government that it would be well to run a few arc lights in the immediate yard and vicinity during the winter, as the boiler would have to run to heat the buildings. The suggestion being to use the steam first for lighting and then use the exhaust steam for heating.

I would call your especial attention to the table giving the details of the stable and teaming expenses for the past five years.

BLACKSMITH SHOP.

Stock on hand, January 1, 1894,		\$1,534.09
Gross cost for 1894,		3,052.61
		<hr/>
		\$4,586.70
Charged to sewers,	\$383.62	
General sewers,	432.12	
Moving snow and ice,	16.50	
Parks and squares,	107.36	
New Bedford and Fairhaven bridge,	1.50	
Park Commission,	351.48	
New Bedford water works,	15.85	
City property,	3.44	
Sundry persons,	14.41	
Stock on hand, January 5, 1895,	1,790.33	3,116.61
		<hr/>
Cost of blacksmithing to highways and streets,		\$1,470.09

This includes the following charges, at lowest prices, to various accounts of highways and streets :

One new cart, repairing and rebuilding old carts,	\$1,057.69
Horseshoeing,	756.12
Repairs in stable,	79.45
Repairs on steam road roller,	30.29
Repairs in machine shop,	9.60

Repairs on crusher,	164.58
Repairs on street sweeper,	29.29
Repairs on tool houses,	7.88
Repairs in carpenter shop,	.50
Repairs on carriage shed,	2.30
Repairs on stone roller,	4.85
Repairs on harrow,	10.55
Repairs on road scrapers,	10.00
Miscellaneous repairs to tools, etc.,	1,136.10
	<hr/>
	\$3,299.20

STABLE AND TEAMING ACCOUNT.

Stock on hand, January 1, 1894, (horses, teams, harnesses, hay, straw, grain, etc.,)		\$11,333.75
Gross cost for 1894,		30,848.76
		<hr/>
		\$42,182.51
Received from water works, (board of horses,)	\$723.42	
For stable dressing,	277.43	
For pork,	36.00	
For horses,	122.40	
For labor furnished fire department,	19.78	
From sundry persons,	25.75	
Stock on hand, January 5, 1895, (horses, teams, harnesses, hay, straw, grain, etc.,)	10,746.75	11,951.53
		<hr/>
Cost of teaming, (this includes repairs of buildings and revaluation of stock on hand, resulting in a shrinkage of \$587,)		\$30,230.98
Charged for work teams have done,		27,294.25

TEAMING NOTES OF INTEREST.

Cost of hay, straw, and grain,	\$7,482.69
Paid hostler, assistant and night watchman,	2,303.62
	<hr/>
	\$9,786.31
Received from water works for board of horses,	723.42
	<hr/>
	\$9,062.89

DEPARTMENT HORSES.

Working horses,	31
Driving horses,	3
Superintendent's horse, (property of A. B. Drake,)	1
	<hr/>
Total,	35

Horse shoeing,	\$810.62
Harness and repairs,	804.87

CARTS IN CONSTANT USE.

Double carts,	11
Single carts,	10
Express wagon,	1
Total,	<u>22</u>

EXTRA CARTS, ETC.

Express wagons,	2
Sundown,	1
Lumber wagon,	1
Light driving wagons,	3
Water cart,	1
Jigger,	1
Single gear,	1
Derrick gears,	2
Sleigh,	1
Road scrapers,	2
Street sweeper,	1
Carts repaired,	\$1,391.02
City stable repairs,	252.72
Miscellaneous, including coal, lights, medicines, medical services, etc.,	816.53
Hire of horses and carts, (while horses were sick or teams were being repaired,)	8.75

In addition have hired teams as follows :—

Single teams at \$3 per day,	\$1,105.78
Double teams at \$5 per day,	11,263.62
Four-horse teams at \$8 per day,	8.00 \$12,377.40

STABLE AND TEAMING ACCOUNT.

	1890.	1891.	1892.	1893.	1894.
Stock on hand at beginning of year,	\$10,706.30	\$14,038.81	\$14,013.54	\$13,881.75	\$11,333.75
Gross cost,	28,775.60	29,977.98	34,243.32	31,852.54	30,848.76
Received from sundry persons and departments,	982.90	423.60	712.76	594.64	481.36
Received from departments for board of horses,	718.29	629.71	911.42	1,190.23	723.42
Stock on hand at end of year,	14,038.81	14,013.54	13,881.75	11,333.75	10,746.75
Gross cost divided as follows:—					
Labor of teamers,	13,667.06	16,115.01	18,615.54	16,063.24	15,449.43
Cost of lighting and heating,	215.05	230.85	311.80	219.20	259.39
City stable repairs,	414.48	247.58	601.01	356.04	252.72
Carts repaired,	2,361.70	1,966.25	2,072.37	2,179.03	1,391.02
Harness and repairs,	810.77	363.00	664.02	611.96	804.87
Cost of hay, straw and grain,	5,125.89	4,748.06	6,909.79	7,391.99	7,482.69
Horse shoeing,	507.43	637.52	725.51	758.45	810.62
Medicines and medical services,	130.02	187.43	179.05	157.25	301.10
Paid hostler, assistant and night watchman,	2,185.65	1,725.92	2,223.07	2,405.00	2,303.62
Miscellaneous items,	3,357.55	3,756.36	1,941.16	3,835.75	1,793.30
Cost of hay, straw and grain used,	4,456.89	5,861.06	7,016.29	7,310.49	6,189.69
Average cost of hay per ton,	15.85	15.00	20.19	22.00	16.70
Average cost of straw per ton,	14.93	15.00	17.04	17.57	16.00
Average cost of oats per bushel,	.462	.647	.49	.486	.475
Average cost of meal per bushel,	.686	.779	.613	.584	.583
Average cost of corn per bushel,	.587	.732	.636	.587	.591
Average cost of corn and meal per bushel,	.503	.786	.619	.587	.587
Average cost of shorts per pound,	.01	.011	.0108	.01	.009

Average number of horses at stable,	32	34	39	42	37
Water works horses,	3	2	3	3	3
Fire department horses,			1	3	
General sewers horse,	1	1	1	1	1
Highways and streets horses, (including Superintendent's horse.)	28	31	34	35	33
Average cost per horse per week : —					
For hay, straw and grain,	\$2.19	\$3.06	\$3.19	\$3.12	\$3.03
For horse shoeing,	.33	.38	.39	.40	.45†
For medicines and medical services,	.08	.10	.09	.08	.17*
For hostler, assistant and night watchman,	1.31	.97	1.09	1.10	1.17

Average amount of hay per horse per year, 3.38 tons.

Average amount of grain per horse per year, 187 bushels.

* Horses sick with influenza.

† Large number of shoes on hand January 1, 1895.

SEWERS.

The most notable work of the year in sewer building was the extension of the Bonney street sewer, six feet in diameter, from the former terminus south of Rivet street to the Cove road, a distance of 1,559 feet.

For about 75 per cent. of its length this sewer was built across a marsh, the excavation below the surface of the marsh reaching an extreme depth of 8.60 feet, the invert of the sewer being from 0 to 3 feet below the surface of the marsh.

A solid foundation and support for the sewer was secured by excavating to a firm foundation 15 feet in width, and building up solid with a concrete of field stone, sand and cement to the sewer, and carrying up the foundation on either side of the sewer to the springing of the arch of the sewer. At this point the sides are $3\frac{1}{3}$ feet thick outside the brickwork.

The under drain of 15-inch pipe is laid in this rubble, with hand holes every 50 feet readily accessible from the inside of the sewer.

A single ring of brick forms the invert of the sewer in the concrete foundation, while a double ring of brick forms the invert through the gravel point. A double ring of brick work forms the arch of the sewer. The shape is slightly gothic at the peak of the arch, being $1\frac{1}{2}$ inches out of a true circle at that point.

I have considered this a stronger form than the true circular sewer of six feet diameter.

The underdrain is not in use at present, but is intended to take the dry weather flow of the Bonney and Crapo streets sewers whenever the appropriation is available to extend the underdrain out into Clark's Cove, beyond the sand-bar, some 500 feet. This will deposit the heavy particles of filth in deep water.

Considering the difficulties encountered, I must express great pride in the thorough and substantial construction, and also call attention to the low cost of the sewer. The sewer construction complete was \$17,620. The filling over the sewer for protection, \$7,316.32 for a length of 1,559 feet, or \$11.30 per foot for construction complete, and \$4.69 per foot for building the preliminary road across the marsh and filling in over the sewer.

The items of interest in this construction are given as follows : —

DETAILS OF BONNEY STREET SEWER.

MATERIAL.	Lineal feet.	Cubic Yards	Tons	Number	Cost
72-inch brick single ring invert double ring arch,	1375.13 }	713			\$454.17
72-inch double ring brick sewer,	184.05 }				41.37
15-inch straight pipe in under-drain,	1483			30	
6-inch on 15-inch T's,	60				
Rubble foundation for sewer,	1375	2224			
Rubble covering for sewer,	1542	609			
Excavation in mud,	1375	3114			
Excavation in gravel,	184	609			
Hoffman Rosendale cement, barrels,				3713	3,621.19
Portland cement, barrels,				8	19.44
Barrington brick,				327,700	3,490.00
Field stone for rubble,			3764.83		1,762.63
Crushed stone,			10.07		10.07
Labor pay roll, excavation construction,			1472		7,320.89
Sand,					900.24
Filling over sewer,					\$17,620.00
					7,316.32
					\$24,936.32
Barrington brick, per M, delivered,	\$10.65	6-inch on 15-inch T,			1.379
Portland cement, per barrel,	2.43	Sand, cost of carting,			695.79
Hoffman cement, per barrel,	.97½	1022 tons of sand at 20c per ton, besides the cost of carting,			
Crushed stone, per ton,	1.00	about 48c per ton.			
Field stone, per ton,	.40	450 tons of sand at the cost of carting.			
15-inch pipe, per foot,	.30½				

The extension of the sewer to tide-water through (contemplated) Copper street has reduced a most filthy ditch to a serviceable plot of land.

An overflow has been provided from the brook, east of the railroad into Coffin avenue sewer. This same brook has been provided with a temporary outlet into the Sawyer street sewer at Front street.

I would call your attention to the outlet of the Merriam street sewer. At low water the tide leaves a large area uncovered, giving forth unhealthy odors. I would suggest the gradual filling in of this area, and the contracting of the water way to a narrow canal of not over 50 feet wide; at the same time filling the extension of the street so that all settlement shall take place within a few years.

By the time this settlement shall have been thoroughly accomplished, the sewer can be extended in this made land at a much less cost than at present, while the covering of the foul deposit will free the neighborhood of the greater part of the odors that are so prominent at present.

The enlargement and building of a new outlet at Howland street sewer from Front street east is another subject calling for early attention.

If this is not done, a storm relief sewer should be extended east from Front street through Grinnell street to the river.

The under-drain of the Bonney street sewer should be extended about 500 feet over the bar into Clark's cove, and a connection made with Crapo street sewer to take the dry weather flow through this same outlet.

The sewer in Coffin avenue should be built from Bowditch street to the river, and a connection made with Davis street sewer at (contemplated) Riverside avenue.

In connection with Coffin avenue sewer, a sewer should be built in Deane street, the abutters having unanimously asked for its construction.

Grape street sewer should be extended westerly to the brook, and north to Allen street. This will afford an outlet for the houses located on Allen street from Rural street to the brook.

This extension will not only provide an outlet for the waters of the brook, but reduce the flooding now caused by that brook from the cemetery south to the Cove road. This sewer should be extended each year to meet the demands already made. For instance: a petition has been presented to the Board for a sewer in Reed street, which cannot be granted until this sewer is extended to Court street.

Tripp brook sewer should be extended north in Liberty street to Maxfield street, to provide for the drainage of the unhealthy, swampy land lying between Liberty and Hunter streets.

Coggeshall street sewer from Cotter street east to the river is entirely too small to meet the requirements of this section. The sewer is now 18 inches. It should be enlarged to three feet to provide for future needs. It could be relieved for many years to come by laying a 24-inch pipe sewer parallel and alongside of the present sewer from Front street to the river,—this new 24-inch pipe not to be connected with any of the buildings between Front street and the river.

The sewer in Cove road should be extended east from Margin street to West French avenue.

A sewer should be constructed in County street from Russell to Hawthorn; in Bedford street from County to Orchard; in Cottage street from Bedford to Allen, to provide storm water outlets from the floods that annually cause damage to the streets.

At least \$10,000 should be expended each year toward lowering the shallow sewers in the center of the city.

The purchase of a trench machine, which I have repeatedly urged, has at last taken on material shape. The employment of this labor-saving device will materially increase the efficiency of the department.

Another important improvement which I have urged you to adopt also materialized at the same time — iron extensible sewer braces.

The saving we can make in labor and material will pay for these implements in one season. The old method of cutting timber to the exact length desired is done away with, and the labor is saved.

When the banks of the trenches become shaky and the braces loosened it will no longer be necessary to call a halt until a new brace may be cut and fitted; it will simply be a few turns of the screw and the brace will be adjusted.

Another important feature is the reduction of obstructions in the trench, a round brace of two inches diameter replacing a timber 3 x 4 inches or 4 x 6 inches.

CATCH BASINS.

The purchase of 150 covers with the money remaining at the close of the year was a wise move. During the coming year, if the covers are used, it will go far toward reducing the washing and damage to our streets caused annually by a lack of these needful adjuncts of a combined sewer system.

Another item not to be lost sight of is the catching of sand in the basins, saving just that much toward the reduction of the cost of dredging out docks.

I would suggest that all old sewers be provided with manholes at the ends, to admit of their being flushed out several times annually. At the present time I can easily

point out sewers that have never received a flushing since being built, all the flow coming through house drains.

All new sewers are provided with a manhole at the end for flushing and inspecting the sewer.

NEW BEDFORD AND FAIRHAVEN BRIDGE.

The movement for the widening and building of a better bridge seems to be well under way. I would suggest no unnecessary expense on the bridge, but would call your attention to the condition of the planking and the constantly increasing cost of repairs.

At the request of local interests, that the draw be changed to the east side of Fish island, W. H. Bixby, Captain Corps of Engineers, U. S. A., in charge of this district, wrote me for information upon the subject.

This correspondence may be of interest,

FEBRUARY 9, 1894.

W. H. BIXBY, Captain Corps of Engineers, U. S. A., Newport, R. I.

Dear Sir:—Yours of the 3d at hand, and enclosure received the 6th. In answer to your request for information will say the present channel has a good depth of water through the draw, passing directly along the front of the city wharves. The opening of the present draw of the bridge is not at right angles with the bridge itself, or in line with the main currents in the channel.

As you will see in looking at the outline of Fish island, the flow of water forms bad eddies and cross currents. There are no fender piers to guide or direct, so that accidents are quite numerous. The location of a draw east of Fish island would seem at first glance to be the natural location.

In looking over this matter I am struck by the shape and contour of the river bottom at the north end of Fish and Pope's islands. The water is quite shallow compared with the channel at the draw, but its worst feature seems to me to be the bar making out from the north end of Pope's island, which naturally tends to deflect the current at flood and ebb tide over to the west shore, causing a shoaling of the present channel opposite the north end of Fish island. What the effect the abandoning of the present draw would have on the present channel after the opening of a new one between the islands, you would be the best judge of. It seems to me that a shoaling would at once take place

there with a corresponding scouring of the channel between the islands. If the bar at the northwest end of Pope's island were removed, it would make a good channel through between the islands.

Its advantages are to place the wharfage property of Fish island in communication with the city, with no delay for the passage of vessels through the draw. It certainly seems to be the location for the future growth of the city. Its disadvantages are possible shoaling of the present channel along the front of the city wharves and a roundabout way of reaching the wharves between the present bridge and the north end of Fish island. The item of cost in making the change will be large, even if no rock is encountered. Rock may be encountered in this section. If you should consider this subject, I would suggest careful and thorough sounding of the bottom before deciding. I enclose map of the city, roughly sketching the idea discussed. If you do not have soundings of this section, I can send you a tracing of soundings taken in 1847.

The bottom practically remains the same to this day as in 1847. I find it so in other soundings. The present channel could be much improved by removing the wharf as marked at A.

Yours truly,

A. B. DRAKE,

Superintendent of Public Works.

U. S. ENGINEER'S OFFICE,

NEWPORT, R. I., February 10, 1894.

MR. A. B. DRAKE, Superintendent of Public Works, New Bedford, Mass.

Dear Sir:—Yours of the 9th inst. was received. Many thanks for your full answer.

It seems to me that the new route between Pope and Fish islands is certainly the one best adapted to the future commercial prosperity of New Bedford, and well worth doing at any reasonable cost.

I agree with you thoroughly in your statement of the advantages and disadvantages of this new route.

As this matter bids fair to come up for considerable discussion shortly, I would be very much obliged to you for a tracing of your 1847 map, large enough to cover all the area of the harbor within three thousand feet of the bridge on each side. Then I can act more intelligently on the subject.

Very truly yours,

W. H. BIXBY,

Captain Corps of Engineers, U. S. A.

U. S. ENGINEER'S OFFICE,

NEWPORT, R. I., February 20, 1894.

MR. A. B. DRAKE, New Bedford, Mass.

Dear Sir:—Yours of the 16th inst. was duly received during my recent absence, with a portion of New Bedford harbor, Mass. This map will be filed in this office for our future reference, where it will doubtless be of considerable value and use when this subject of a new draw comes up for further consideration. The map confirms my last expressed opinion to you. Thanking you for your favor, I am

Very respectfully,

W. H. BIXBY,

Captain Corps of Engineers, U. S. A.

I mention this as a matter of public interest, as I understand that in the event of the elevation of the bridge to cross over the railroad track, the removal of the draw to the east of Fish island would be of great assistance in reducing the grade from the railroad to Fish island, as it is necessary that the deck of the draw span should be level.

The present draw could not have been located in worse surroundings on account of cross currents and narrow crooked channel. The location of the draw to the east of Fish Island would make it possible to give a straight channel from the anchorage in the inner harbor through the bridge.

The current would assist, and not impede and hinder the passage of vessels, as at present.

The usual report of the number of vessels for which the draw has been opened follows.

The following is the report of Capt. John B. Nicholson, draw tender of the New Bedford and Fairhaven bridge, for the twelve months ending December 31, 1894, showing the number of vessels for which the draw has been opened:—

	Boats.	Schs.	Ships and Barks.	Tugs.	Barges.	Total.
January,	6	40		40	6	92
February,	6	17		20	1	44
March,	7	37		30	3	77
April,	57	33	4	42	5	141
May,	141	56	4	63	22	286
June,	206	49	1	46	14	316
July,	196	40		23	5	264
August,	242	55		31	6	334
September,	221	44	1	28	9	303
October,	700	45		39	10	794
November,	101	48		52	9	210
December,	24	35		45	10	114
	1907	499	10	459	100	2975

COGGESHALL STREET BRIDGE.

This bridge has been turned over to the city by the County Commissioners. It has been found impossible to open the draw of this bridge this year, as the draw piers have been so weak as to allow the draw to drift to the eastward, where it bears hard and fast against the east abutment. This is the third time this drift to the eastward has occurred. During the fall, under your instructions, Edward S. Shaw, consulting engineer, a bridge expert, and myself have examined the bridge with others.

After considering a number of propositions, including several from the builders, we settled upon what was considered to be the wisest course, in the strengthening of

the weak points in the construction, and the elevation of the structure sufficient to remove the iron work out of the reach of the salt water at ordinary stages of the tide.

The plan, condensed, was to elevate the draw span three feet and allow the two spans on either side of the draw span to stand on an incline from the draw to the present abutment. This, with the strengthening of weak structure, the placing of end adjustments at both ends of the draw to give the draw a bearing at both ends, the overhauling of all running parts, and the bracing and tying together of the draw piers, would give a bridge for a few years. The price for this work guaranteed at \$4,550.

After arranging with the selectmen of Fairhaven and securing their agreement to the proposed improvement, the City Council refused the appropriation for the work, believing it could be done better at less expense.

The City Council has now assumed charge of the matter.

CIVIL SERVICE,

Civil service still continues to give the best and most satisfactory results in handling the employes of this department.

It has demonstrated that the employes of the department are becoming more capable and more skillful in all branches of department work. We have among the employes capable men who are doing better and more skillful work every year.

In producing better workmen in the various branches of the work, the city must surely reap the benefit in good work at reasonable cost.

The work of the past year has given less steady work than usual. Respectfully submitted.

ALBERT B. DRAKE,
Superintendent of Public Works.

STREETS ACCEPTED.

STREETS.	LOCATION.	35 Feet wide.	40 Feet wide.	50 Feet wide.	60 Feet wide.	100 Feet wide.
Armour, Beetle, Bolton road, Borden, Brownell avenue, Cross, Dudley, Front, Glover, Granfield court, Leonard, Mill, Mill, Mill, Morton court, Pierce, Pierce, Pine, Pine Grove,	Arnold to Union, Acushnet avenue to Bowditch street, Southern terminus to Rockdale avenue, Bedford to Grove, Hawthorn to Kempton, Pine to Leonard, Brook avenue to West French avenue, Gifford to Delano, Austin to Collins, Coggeshall north, Cross to Water, Ash to Park, Newton to Florence, Florence to Kempton, Cove street north, Court to Elm, Elm to Kempton, Cross to Water, Tarklin Hill road to Pine Grove cemetery,		371.96 206.20 370.11 295.62 262.45 250.33 710.05 1245.70 512.58	606.33 525.16 1159 614.80 1268.30	62.58 62.58	3410.27 3410.27
Total, 19 streets.		512.58	4939.54	4173.59	62.58	3410.27

Total, 19 streets. Total length, 12,649.31 feet, or 2.395 miles.

STREETS WIDENED.

STREETS.	LOCATION.	Amount of Widening.	Former Width.	Present Width.
Kempton,	Rockdale avenue to Dartmouth line,	40 feet on south side.	40	80

STREETS DISCONTINUED.

Rockdale avenue, from Cove road to Dartmouth street. Layout of June 8, 1891.

NAME OF ACCEPTED STREET CHANGED.

Middle Point road, from U. S. Government property to West French avenue; changed to Brock avenue.

MACADAM — NEW.

STREET.	LOCATION.	Length. Feet.	Width. Feet.	Area. Sq. Yards.	Stone. Tons.	Cost.
Arnold, Blackner, Chestnut, Foster, Griffin, Katharine, Linden, North,	Between Cottage and Ash, Between Water and First, Between North and Hillman, Between North and Hillman, Between Second street and Acushnet avenue, Between County and Crapo, Between Purchase and Pleasant, Between Chestnut and Cottage,	573 148.7 262 266 190 30.2 98 204.2 820.2 28.5 33 550.2	17.3 17.9 18.3 18 18 28 25 17.15 23.1 24.2 25 18	1,126.41 295.75 532.73 532 380 93.95 272.22 389.11	482 138 198 193 185 29 135 157	\$661.67 193.31 274.20 282.69 268.70 42.78 202.46 211.79
North Front,	Between Wamsutta and Coggeshall,	28.5 33 550.2	24.2 25 18	3,488.42	1,856	2,169.15
*Orchard,	Between Cove road and Rivet street,				1,030	1,186.32
Pine,	Between Cross and Water,	13 61 246 42 1,079	35 33 17 28.5 17.9	968.99	491	803.51
Second, Seventh, Seventh, State,	Between Potomaska and Grinnell, Between Madison and Walnut, Between Walnut and School, Between Linden and Weld,	243.8 332 531	16.4 16.8 17	2,146.01 444.26 619.73 1,117	977 232 273 389	1,384.75 329.93 360.16 609.28
		5,751.8		12,306.58	6,765	\$8,980.70

Total cost of new macadam, \$8,980.70
 Cost of new macadam per ton of stone, 1.359
 Cost of new macadam per square yard, \$.633
 Average tons of stone used per square yard, .466

* To be finished in 1895.

MACADAM REBUILT.

STREET.	LOCATION.	Length. Feet.	Width. Feet.	Area. Sq. Yards.	Stone. Tons.	Cost.
Chestnut, Cottage, County,	Between Willis and Parker, Between Arnold and Union, Between Cove and Division,	38 295.3 638.8	19.5 } 17 } 18.1 }	667.31 1,299.25	260 346 466	\$301.71 417.16 713.80
County,	Between Delano and Rivet,	121 28 34 270	24.1 } 25.6 } 48 } 25.8 }	1,366.24	510	529.24
County, Court,	Between Rivet and Thompson, Between Cottage and Ash,	367.5 580.4 190.2	25.2 16.9 18	1,029 1,106.72	470 453	630.40 477.04
Court,	Between Ash and Park,	259.7 277.7 64	18.1 } 17.5 } 17.8 }	1,483.79	632	763.53
Court,	Between Liberty and Reed,	1,115 36 591	18 } 19 } 20.6 }	2,496.62	1,002	1,175.68
Dartmouth,	Between Rockdale ave. and Rockland street,	650 1,387 182	9.15 } 19.8 } 17 }	5,064.96	1,334	1,951.15
Division, Eighth, Kempton, Market, Pleasant, Pleasant, Pleasant, Rivet,	Between Water and First, Square at William, West of Rockdale avenue, Between Pleasant and Sixth, Between Union and William, Between Campbell and Willis, Between Willis and Pearl, Between Fourth and County,	1,370.5 85 396.1 190.3 236.4 25 152.7	12.4 22 25.24 17.3 17.8 22.5 17	367 203.11 1,833.42 214.54 1,111.03 365.8 467.55 294.68	164 57 700 94 440 154 215 156	217.75 67.43 822.58 119.65 635.63 193.12 255.14 243.41

Second, Second, Second, Sixth, Weld,	Between Coffin and Walnut, Between Walnut and School, Between Spring and Union, Between Union and Spring, Between Purchase and Pleasant,	249.7 275.8 347.3 149 214.4 175	17.6 } 17.75 } 17.7 17.1 18 17.7	1,032.24 683.02 283.10 428.8 344.17	415 222 137 222 139	512.50 358.40 180.21 227.51 262.09
		10,992.8		22,142.35	8,588	\$11,055.13

Total cost, \$11,055.13
 Cost per ton of stone, 1.287
 Cost per square yard, \$.499
 Average tons of stone used per square yard, .387

MACADAM REPAIRED.

STREET.	LOCATION.	Length. Feet.	Width. Feet.	Area. Sq. Yds.	Stone. Tons.	Cost.
Acushnet avenue, Acushnet avenue, Austin, County, Hawthorn, North Front, Pleasant, Reed, Water, Wing,	North of Washburn, North of Phillips road, Between Cottage and Cedar, Between Hillman and Maxfield, Between Rotch avenue and Dartmouth line, Between Wamsutta and Logan, Between Union and Market, Between Court and Kempton, Between Union and William, Between Acushnet avenue and Fourth street, Sundry small repairs,	400 1010.7 • 347.7 194.2	 18.11 18.3 17.8 16.9	 804.89 2055.09 690.18 365.33	49 24 4 92 254 166 68 675 123 143	\$68.19 46.64 26.30 117.32 322.66 321.60 68.82 803.54 177.94 232.27 2301.44
		1952.6		3915.49	1598	\$4486.72

Total cost, \$4486.72 Cost per ton of stone, \$1.367
 Cost per square yard, .392 Average tons of stone used per sq. yard, .282

PAVING—NEW.

STREET.	LOCATION.	BLOCK.			COBBLE.			Cost.
		Length. Feet.	Width. Feet.	Area. Sq. yds	Length. Feet.	Width. Feet.	Area. Sq. yds	
Acushnet ave., Davis, Howland, Kempton, Prospect, *Sears court, Seventh,	West side, south of Davis street,	16.1	9	179.44	87.8	3.2	37.33	\$395.21
	South side, between Acushnet avenue and Bowditch street,	76.6 16.3 36.3	18.45 12.2 4.4	38.98	32.8	3.1	11.3	93.16
	Between Water and Acushnet avenue,	360.6	18	1037.82				
	West of Rockdale avenue, Square at Howland, (Square at Howland (relaid)), Between Purchase and Pleasant, Between School and Spring,	192.7	17		271.4 2.63	56.6 27.4	170.95 80.07 52.13	2189.27 57.41 47.63
		127.6	9.85	139.45	24.4	18	49.21	24.13
				1445.69			400.99	\$2806.81

Total cost of block paving, about
Cost per yard of block paving,

\$2,677.64
2.049

Total cost of new cobble paving, about
(Cost per yard of cobble paving,

\$129.17
.366

* Cost under layout and acceptance of Sears court.

PAVING REPAIRED.

STREET.	LOCATION.	BLOCK.			COBBLE.			Cost.
		L'gth Feet.	Width Feet.	Area Sq. yds.	L'gth Feet.	Width Feet.	Area Sq. yds.	
Acushnet av.,	Bet. Bedford and Russell,				311	3.237	111.87	\$35.23
Acushnet av.,	Bet. Madison and School,							76.24
Acushnet av.,	Bet. Union and William,				375.3	19.1	807.58	175.28
Acushnet av.,	Bet. Campbell and Willis,				192	23	490.67	139.27
Acushnet av.,	Bet. Pearl and Wamsutta,						1589.41	783.65
Acushnet av.,	Bet. Logan and Weld,				561.3	36.46	2573.88	447.22
Austin,	Bet. Purchase and Pleasant,				74.5	59.2	251.40	81.46
*Bridge,	West of the draw,							
Cedar,	Square at Hillman,				33	24	101.33	41.34
Coffin,	East of Water,				272.4	13	393.47	72.41
Commercial,	Bet. Front and Water,							18.99
Cottage,	Square at Mill,				30.8	14	47.80	17.05
Court,	Square at Park,				16	26.25	46.66	26.11
Elm,	Bet. Acushnet av. and Purchase st.							51.41
Elm,	Bet. Purchase and Sixth,							97.41
Fifth,	Square at School,				28.55	28	} 120.95	56.67
Fifth,	Square at Spring,				24	3.4		9.38
Fifth,	Square at Spring,				22.8	10		91.03
Fourth,	Bet. Potomska and South,							9.18
Fourth,	North of Wing,							99.60
Fourth,	Bet. Russell and Madison,							294.89
Front,	Bet. Walnut and Middle,							22.59
Kempton,	Square at Cedar,				13.2	9.4	57.06	83.68
Kempton,	Between Ash st. and Rockdale av.							

[illegible]

*Cost under New Bedford and Fairhaven Bridge.

STREETS FILLED AND GRADED.

STREET.	LOCATION.	COST.
Acushnet ave.,	North of Lund's Corner,	\$114.21
Armour,	South of Court,	124.24
Austin,	Between State and County,	30.91
Austin,	Between County and Ashland,	91.77
Austin,	Between Cedar and Wilson,	92.84
Babbitt,	West of Dartmouth,	52.99
Beetle,	East of Bowditch,	345.68
Belleville ave.,	Between Washburn and Cedar Grove,	216.27
Belleville ave.,	Between Cedar Grove and Coggeshall,	569.46
Belleville ave.,	Between Coggeshall and Sawyer,	25.53
Belleville ave.,	North of Sawyer,	66.81
Belleville ave.,	Between Washburn and Coffin ave.,	236.60
Bentley,	(Contemplated) between Acushnet ave. and Bowditch street,	245.25
Blackmer,	East of Water,	211.36
Bonney,	North of Cove road,	48.10
Brock ave.,		58.49
Bullard,	Between Belleville and Acushnet aves.,	187.07
Cedar Grove,	West of County,	37.35
Chancery,	Between Union and Court,	75.90
Clark,	Between Purchase and Pleasant,	85.51
Coffin ave.,	Foot of,	318.84
Coggeshall,	West of County,	100.46
Columbia,	Between Clay and Allen,	131.35
Copper,	East of Front,	1,386.19
Cottage,	Between Locust and Robeson,	265.93
Cotter,	Between Cedar Grove and Coggeshall,	281.42
County,	Foot of,	147.24
Cove road,	Between County and Crapo,	51.18
Cove road,	West of Orchard,	31.90
Cove road,	East of Dartmouth line,	34.41
Davis,	East of Acushnet ave.,	155.35
Davis,	West of Acushnet ave.,	219.95
Dudley,	West of Brock ave.,	994.04
Durfee,	Between Cedar st. and Shawmut ave.,	385.82
Durfee,	Between Shawmut and Rockdale aves.,	128.79
E. French ave.,		163.37
Elm,	Between Park and Newton,	38.92
Emerson,	South of Union,	42.54
Fish island,		1,160.69
Front,	Between Grinnell and Howland (yard),	55.33
Gifford,	East of Harbor,	41.79
Grand,	West of Shawmut ave.,	220.86
Harbor,	Between Cove and Gifford,	28.25
Hazzard,	East of County,	185.10
Hicks,	East of Acushnet ave.,	106.32
Howard ave.,	East of Acushnet ave.,	604.98
Kilburn,	East of Front,	862.28
Maple,	Between Ash and Chancery,	77.72

STREETS FILLED AND GRADED — *Continued.*

STREET.	LOCATION.	COST.
Merrimac,	East of Acushnet ave.,	\$698.65
Merrimac,	Between Purchase and State,	99.38
Mill,	West of Park,	52.13
Morton court,	North of Cove street,	235.02
Morgan's lane,	Between Water and Second,	26.10
Mosher,	East of Crapo,	113.99
Nelson,	Between County and Crapo,	352.36
Newton,	South of Hillman,	75.25
North,	Between Cedar and Ash,	38.59
North,	Between Hunter st. and Rockdale ave.,	251.75
Oak,	Between Grape and Allen,	53.96
Orchard,	South of Rivet,	47.09
Park,	Between Maxfield and Parker,	67.15
Park,	Between Smith and Parker,	72.70
Penniman,	West of Purchase,	204.20
Pierce,	Between Court and Kempton,	489.02
Pleasant,	Between Union and William,	31.76
Pope,	East of Acushnet ave.,	954.74
River road,	South of Howard ave.,	119.65
Rivet,	Between County and Dartmouth,	49.08
Rockdale ave.,	South of Allen,	541.75
Rockdale ave.,	South of Kempton,	158.64
Sawyer,	East of Front,	39.60
Sawyer,	Between Front and Acushnet ave.,	143.08
Scott,	Between County and Crapo,	619.25
Seventh,	Between Madison and School,	25.69
Short,	South of Allen,	68.38
Stapleton,	Between Cove road and Cove street,	51.54
Stone,	Between Allen and Grape,	28.27
Thompson,	Between Crapo and Bonney,	286.97
Union,	Between James and Rounds,	139.73
Washburn,	Foot of,	838.75
Weld,	West of County,	85.51
W. French ave.,	South of Cove road,	135.62
West Maxfield,	West of Park,	380.59
Wilson,	Between Austin and Durfee,	452.93
Sundry streets	Costing less than \$25,	605.28
		\$19,771.51
Deducted because paid for by collecting ashes, \$6,623.17		
Deducted because charged to sweeping and cleaning streets,		944.72 7,567.89
		\$12,203.62

CROSSWALKS—NEW.

STREET.	LOCATION.	LINES.	STONE.		CONCRETE.			COST.		
			L'gth Feet.	Width In.	L'gth Feet.	Width Feet.	Area Sq. yds.			
Acushnet av., Austin, Chancery, Cottage, Cottage, County, Court, Court, Court, Court, Court, Davis, Fifth,	West side, south of Davis, South side, across Pleasant, Bet. Arnold and Union, East side, across Middle, West side, across Middle, West side, across Katharine, West side, across Liberty, West side, across Tremont, North side, across Lindsey, North side, across Jenney, West side, across Florence, South side, between Acushnet av. and Bowditch street, Square at School, viz :— West side, across School, East side, across School, North side, across Fifth, South side, across Fifth,	Double.	162.4	24	27.2	7	21.16	\$99.71		
									Cr's'd stone.	11.75
										3.15
										7.02
										7.01
										7.73
										11.99
										12.23
										7.82
										7.50
										18.25
Hazzard, Park, Pearl,	South side, across Pleasant, Bet. Arnold and Union, South side, east of Purchase,	{ D'ble. Re-laid, old stone. D'ble, old stone.	46.5	18	27.2	7.6	22.97	41.08		
								18.37		
								9.27		
								Cr's'd stone.	5.00	

Pleasant, Pleasant, Pleasant, Pleasant, Pleasant, Pleasant, Pleasant, Pope, Union, Union, Weld, William, William, William, William,	West side, across Union, At Market, Across William, West side, across Pope, West side, across Hazzard, West side, across Austin, East side, across Linden, West side, across Linden, North side, across Pleasant, West side, across Ash, Square at Chancery, South side, across Pleasant, Bet. Purchase and Pleasant, South side, across Pleasant, South side, across Eighth, North side, across Eighth,	Double.	15.7	24	19.8 35.6 34.7 37.7 39.5 19.7	6 8.5 6.8 6.7 7.8 6	13.2 33.62 26.22 28.07 34.23 13.13	Cr's'd stone. Cr's'd stone.	10.17 5.69 8.26 20.26 20.16 11.87 15.89 19.23 18.20 7.07 23.94 13.03 43.51 5.73 13.06 12.50
		Double.	47.6	24	26.85	6.7	19.99	Cr's'd stone. Cr's'd stone.	7.07 23.94 13.03 43.51 5.73 13.06 12.50
			430.5		562.75		435.11		\$624.36

CROSSWALKS — REPAIRED.

STREET.	LOCATION.	LINES.	STONE.		CONCRETE.			COST.
			Length. Feet.	Width In.	Length. Feet.	Width Feet.	Area. Sq. yds.	
Aeshnet av.,	East side, across Howland,	{ Relaid, new stone.						
Aeshnet av.,	West side, north of Lund's Corner,	Relaid.	31	18				\$24.76
Arnold.	North side, across Emerson,	"	25.8	18				10.00
Campbell,	South side, across Pleasant,	"	47	18				9.69
Howland,	Square at Prospect, viz:— North side, across Prospect, South side, across Prospect, East side, across Howland, West side, across Howland,	"	19.3	18				4.50
	South side, across First,	"	51.2	18				
Howland,	Square at Cedar, viz:— South side, across Cedar, East side, across Kempton,	"	43.9	18				
Kempton,	West side, across Pleasant,	"	26.9	18				
	South side, across Pleasant,	"	44.9	18				53.97
	Square at William, viz:— East side, across William,	Repairs.	26	24				4.21
	West side, across William,	Relaid.	46.5	18				
	South side, across Pleasant,	"	7.3	18				
Linden,	West side, across Pleasant,	"	10	18				7.80
Linden,	South side, across Pleasant,	Double.	46.4	18				9.51
Pearl.	South side, across Pleasant,	"	45.9	18				9.44
Pleasant,	Square at William, viz:— East side, across William,	"	49.3	18				18.69
	West side, across William,	{ Relaid, new stone.	74.5	24				
	South side, across Pleasant,	Relaid,	75	24				
	North side, across Pleasant,	"	32.4	24				148.95
		"	33	24				

Pleasant, Pleasant, Pleasant, Pleasant, Prospect,	East side, across Pearl, West side, across Pearl, East side, across Linden, West side, across Linden, East side, between Grinnell and How- land,	Relaid. "	Single. "	28.4 33.4	24 24	37.7 39.5	6 7 7.8	28.07 34.23	10.76 12.66 11.49 11.48
Purchase, Purchase,	West side, across William, West side, across William,	Relaid. " "	Double. " "	19.5 14.6	18 18				3.25 8.89
Rivet, Rivet.	North side, across Fourth, North side, between Crapo street and Bolton road,	new stone. Relaid.	Triple. Double.	82.1 31.8	24 18				54.28 12.00
School, School, Second,	South side, across Seventh, North side, across Seventh, West side, across Howland,	Repairs. Relaid. " "	Double. " " "	46.3 42.7	18 18				9.06 6.68 4.34
Second, Second,	West side, across Howland, East side, across Howland,	new stone. Relaid. "	" " "	15 17	24 18 }				9.49
Second, Seventh, Seventh, Seventh, Seventh, Union, Union,	East side, across Howland, East side, across Walnut, West side, across Walnut, East side, across School, West side, across School, South side, across Second, North side, across Pleasant,	new stone. Relaid. " " " " Repairs. Relaid.	" " " " Single. Double. "	14.8 16.2 44.9 42.6 21.3 42.7	24 18 18 18 24 18				9.50 9.88 8.54 5.58 8.78 2.73
Walnut, Walnut, Water, Weld, William,	South side, across Seventh, North side, across Seventh, West side, across Howland, South side, across Bowditch, North side, across Purchase,	new stone. Relaid. " Repairs. Relaid. "	" " " Double. Triple,	65.8 43.2 43 59.6 26.1	24 18 18 18 24				46.07 9.64 8.65 4.21 22.58
	Sundry small repairs.	new stone.	Triple,	1517.3		77.2		62.3	21.51 32.01 8645.58

GUTTERS—NEW.

STREET.	LOCATION.	Length. Feet.	Width. Feet.	Area. Sq. yds.	Cost.
Arnold, Clinton, Dartmouth,	North side, between Lincoln and Ash. South side, between Cottage and Ash. Between Rockdale avenue and Spooner street.	285 67 1700.8 235.1 1224.3 297.9	4 3.5 4 6.54 4 3	126.65 26.06 926.85 555.8 99.3 137.2	\$63.61 12.92 560.66 298.18 61.30 48.89
Emerson, Crapo, Kilburn, Kilburn, Newton, Newton, North Front, Pine, Rivet.	Both sides, between Arnold and Union. West side, between Thompson and Rockland. South side, between Belleville avenue and Front street. North side, between Belleville avenue and North Front st. East side, between West Elm and Kempton. West side, between West Elm and Kempton. Both sides, between Logan and Coggeshall. Both sides, between Cross and Water. Both sides, between Fourth and County.	357.3 555.3 531.8 2537.4 473.8 152.2 173.2 736.1 528	4 3.5 3.5 4 3.5 4 3.5 3.5 3.5	161.58 215.95 206.81 1127.7 183.25 135 536.08 286.25 205.3	66.92 107.31 103.12 667.40 84.02 91.34 294.79 155.28 105.20
Second, Shawmut av., State.	Both sides, between Potomska and Grinnell, Both sides, between Smith and Parker. West side, between Linden and Weld.	1378.5 736.1 528	3.5 3.5 3.5	536.08 286.25 205.3	294.79 155.28 105.20
Total length, Average width,	11,233.7 feet. 3.94 feet.	11,233.7		4929.78	\$2720.94 \$2,720.94 .552 .242

Total cost,
Cost per square yard,
Cost per foot length and average width,

GUTTERS REPAIRED.

STREET.	LOCATION.	Relaid.	Length. Feet.	Width. Feet.	Area. Sq. yds.	Cost.
Acushnet av.,	West side, between Plummer and Davis,	Relaid.	286.2	3.5 }	164.88	\$79.19
Acushnet av.,	West side, south of Lund's corner,	"	61	4 }	76.61	37.86
Allen,	West side, between Ward and Waverly,	"	197	3.5 }	52.03	6.25
Blackmer,	Both sides, between Water and First,	"	156.1	3 }	99.13	25.68
Bonney,	East side, between Grinnell and Washington,	"	297.4	3 }	62.17	58.55
Bonney,	Both sides, between Fair and Washington,	"	186.5	3 }	34.99	12.20
Chauncery,	East side, between Court and West Elm,	"	90	3.5 }	39.66	6.10
Chestnut,	Both sides, between North and Hillman,	"	102	3.5 }	187.61	44.67
Chestnut,	West side, between Willis and Parker,	"	524	3 }	114.85	30.72
County,	East side, between Rivet and Thompson,	"	295.3	3.5 }	113.1	83.78
County,	West side, between Bedford and Russell,	"	303.5	4 }	148.42	8.31
County,	South side, between County and Orchard,	"	41.6	3 }	26.08	15.87
Court,	Both sides, between Cottage and Ash,	"	26	4.3 }	131.21	98.77
Court,	Both sides, between Ash and Park,	"	337.4	3.5 }	447.08	189.91
Court,	Both sides, between Lindsey and Reed,	"	908.2	3.5 }	572.94	309.69
Division,	Both sides, between Water and First,	"	201.4	4 }	989.95	68.16
Fifth,	West side, between Russell and Madison,	"	1,447	3.5 }	135.97	44.64
Fifth,	Square at School,	"	2,227.4	4 }	162.64	27.21
Fifth,	East side, between Spring and Union,	Repairs.	309.5	3.5 }	47.74	10.60
Foster,	Both sides, between North and Hillman,	Relaid.	34.6	4 }	176.03	38.90
Griffin,	Both sides, between Second st. and Acushnet av.,	"	479	3 }	123.32	41.59
			147.3	3 }		
			576	3 }		
			370	3 }		

GUTTERS REPAIRED.—*Continued.*

STREET.	LOCATION.		Length. Feet.	Width. Feet.	Area. Sq. yds.	Cost.
Grove, Hawthorn, Kempton, Madison, Market, Maxfield, North,	North side, between Ash and Cottage, South side, between Cottage and Ash, South side, west of Rockdale av., South side, between Acushnet av. and Fourth st., South side, between Pleasant and Sixth, North side, between Walden and Thomas, Both sides, between Chestnut and Cottage,	Relead. " " " " " "	140.3 99.5 1,641.9 129.8 103 186 204.2	2 2.5 4 3.5 3.5 2 3.5 }	31.17 27.64 729.72 50.48 40.06 41.33	17.58 7.34 281.42 12.85 26.40 11.60
North Front, Orchard, Pleasant, Pleasant, Russell, Second, Second, Seventh, Sixth,	Both sides, between Logan and Coggeshall, East side, between Bedford and Hawthorn, Both sides, between Union and William, Both sides between Campbell and Pearl, Head of, Both sides, between Potomaska and Grinnell, Both sides, between Spring and Union, Both sides, between Madison and School, West side, south of Union,	" " " " Repairs. Relead. " "	394.4 28 609.05 852.5 774.4 300 1,172.1 76 75	3 5.6 3.5 3 3 3.5 3.5 1.2 3 2.5 3.5 3.5	170.15 131.47 25.59 283.14 284.17 258.06 56.66 429.04 35.13 25 206.9 155.01	35.57 38.39 7.45 108.78 81.29 12.31 75.35 26.74 101.87 18.75 4.99 60.00 40.20 68.99
Spruce, State, Wing,	East side, between Hillman and Maxfield, East side, between Linden and Weld, Both sides, between Acushnet av. and Fourth st., Sundry small repairs,	" " " "	532 398.6			
Length in feet, Cost, Cost per foot in length,	17,728.45 feet. \$2,276.52 \$0.128	Area in square yards, (Cost per square yard,	17,728.45		6,774.03	\$2,276.52 6,774.03 square yards. \$0.322

CURBING.

STREET.	LOCATION.	NEW.		RELAID.		Cost.
		With new stone.		With new stone.	With old stone.	
Acushnet av., Arnold, Ash, Bedford, Belleville av., Bonney, Cedar Grove, Chancery, Chestnut, Clinton, Cottage, County, Court, Court, Dover, Fourth, Front, Front, Front, Front, Grove, Hawthorn, Howland, Kilburn,	West side, south of Davis, North side, between Ashland and Emerson, Northwest corner Maple, North side, east of Cottage, East side, between Sawyer street and Acushnet avenue, Both sides, between Rockland and Washington, South side, between Acushnet avenue and Bowditch street, West side, south of Union, West side, between Willis and Parker, South side, between Cottage and Ash, East side, between Bedford and Grove, East side, between Rivet and Thompson, South side, between County and Orchard, South side, between Cottage and Ash, North side, between Second street and Acushnet avenue, East side, between Russell and Madison, East side, between Grinnell and Howland, West side, between Grinnell and Howland, Southwest corner Cedar Grove, Northwest corner Cedar Grove, North side, between Cottage and Ash, South side, between Cottage and Ash, Both sides, between Water street and Acushnet avenue, South side, east of Front,	99.2 12.5 147.94 176 114.5 65.9 106.2 81.7 534.5 534.5 12.1 129.5 63.1 277.2 353.9		30.1 69.1 122 130.4 87 319 116.5 101.3 13.3 416.9	30.1 69.1 122 130.4 87 319 116.5 101.3 13.3 416.9	\$64.13 6.70 7.95 10.00 967.59 24.22 120.62 84.30 120.11 41.73 83.71 10.51 42.30 8.45 48.94 16.09 344.75 320.08 3.00 12.19 86.51 44.87 477.04 213.55

CURBING — Continued.

STREET.	LOCATION.	NEW.		RELAID.		Cost.
		With new stone.		With new stone.	With old stone.	
Madison, Market, Maxfield, North, Pine, Pleasant, Pleasant, Prospect, Purchase, Rivet, Second, Seventh, Sixth, Union, Union, Union, Walden, William, Wing,	South side, between Acushnet avenue and Fourth street, South side, between Pleasant and Sixth, North side, between Walden and Thomas, North side, between Chestnut and Cottage, Both sides, between Cross and Water, East side, north of Union, West side, between Union and Market, Southeast corner Austin, East side, between Grinnell and Howland, West side, north of William, Northwest corner Fourth, West side, between Dover and Elm, East side, between Madison and Walnut, West side, between Spring and Union, North side, between Purchase and Pleasant, South side, between Sixth and Seventh, North side, between Ash and Chancery, South side, west of Chancery, West side, between Maxfield and Sycamore, North side, west of Purchase, South side, between Acushnet avenue and Fourth street, Sundry small repairs,			37.30 111.1 476.3 164.29 16 100.71 45 49.61 51.5 94 85.3 159.05	129.8 74 191.4 12.5 45 154.2 106 8.3 70 175.5	20.61 24.25 85.23 15.25 353.18 115.00 12.67 8.62 12.75 72.51 9.59 26.65 7.75 1.54 34.73 12.84 33.33 70.21 58.00 115.32 15.54 99.98
		4193.3		1855.16	2023.9	\$4364.89

Total cost, \$4,364.89 Cost per foot new curbing, \$0.64
 Total cost of relaying, repairs, etc., about 1,680.51 Cost per foot of stone, .47
 Total cost of new work, about 2,684.38 Cost per foot of labor, .17

CONCRETE — NEW.

STREET.	LOCATION.	Area. Sq. yards.	Cost.
Acushnet av.,	West side, south of Potomska,	54.70	\$26.30
Acushnet av.,	Between South and Grinnell (Acushnet Avenue school yard),	264.45	155.87
Acushnet av.,	West side, south of Davis,	145.91	85.79
Alushouse yard,		210.36	124.31
Ash,	East side, between Court and Kempton,	450.43	197.55
Bethel,	West side, between William and Elm,	137.68	64.73
Bonney,	West side, between Rockland and Washington,	288.98	126.12
Bonney,	East side, between Washington and Grinnell,	84.85	41.54
Campbell,	North side, between State and County, top coat,	34.10	6.20
Campbell,	South side, between State and County, top coat,	36.38	11.16
Chestnut,	West side, between Willis and Parker,	146.37	72.62
Cottage,	East side, between Middle and Kempton,	184.60	81.97
Court,	South side, between County and Orchard,	262.00 }	115.62
Court,	South side, between County and Orchard,	6.14 }	
Court,	South side, between Liberty and Tremont (Harrington school yard),	115.60	69.68
Division,	North side, between Water and First,	104.54	49.34
First,	North side, between Coffin and Madison,	121.86	52.89
Fourth,	East side, between Russell and Madison,	89.32	35.81
Franklin,	East side, between Pleasant and State,	244.32	84.29
Madison,	South side, between Acushnet avenue and Fourth street,	115.05	50.20
Maxfield,	North side, between Walden and Thomas,	41.43	25.94
Mill,	North side, between Cottage and Cedar,	43.57	25.43
Park Place,	South side, west of Sixth,	112.24	53.07
Potomska,	South side, between Acushnet avenue and Fourth street,	48.44	23.30
Prospect,	East side, between Grinnell and Howland,	138.56	80.66

CONCRETE — NEW — *Continued.*

STREET.	LOCATION.	Area. Sq. yards.	COST.
* Sears court, Second, Second, Second, Spruce, State, Summer, Walden, Water, Water, Water, Willis,	Between Purchase and Pleasant, West side, between Spring and Union, rebuilt, West side, between Spring and Union, rebuilt, East side, between North and Hillman, West side, between Sycamore and Smith, West side, between Pope and Franklin, East side, between Hillman and Maxfield, West side, between Maxfield and Sycamore, West side, between Division and Delano, East side, between Gifford and Delano, West side, between Rivet and Potomska, West side, between Rivet and Potomska, top coat, South side, between County and Summer,	110.33 67.35 } 31.83 } 241.17 18.00 14.56 55.22 80.96 65.83 170.69 397.01 } 24.36 } 152.69	43.29 123.31 8.51 8.96 24.57 50.75 31.19 80.69 193.90 63.28
Area in square yards, Cost per square yard,	\$4,901.88 Cost, \$0.478	4,901.88	\$2,288.84

\$2,288.84

* Cost under layout and acceptance of Sears court.

CONCRETE — REPAIRED.

STREET.	LOCATION.	New.	Rebuilt. Sq. yards.	Top Coat. Sq. yards.	Cost.
Acushnet av.,	West side, between Logan and Weld,			519.48	\$113.44
Acushnet av.,	East side, between Wamsutta and Logan,			861.36	179.62
Bonney,	West side, between Rockland and Washington,			35.50	6.49
Chestnut,	West side, between Willis and Parker,			109.11	22.00
Cottage,	East side, between Allen and Bedford,		254.96		64.88
County,	West side, between Rockland and Fair,		8.07	41.77	12.87
County,	East side, between Hillman and Maxfield,			247.48	52.86
Court,	North side, between Cedar and Park,	15.2	463.62		228.49
Dartmouth,	South side, between Allen and Orchard,		142		65.69
First,	East side, between Potomska and South,	22.18		297.67	37.60
Fourth,	East side, between South and Grinnell,				85.18
Fourth,	West side, between Grinnell and Wing,		203.26	282.46	49.09
Franklin,	South side, between Pleasant and State,			249.79	39.96
Hazzard,	South side, between Pleasant and State,			75.89	26.61
Kilburn,	South side, east of Front,	104.17	250.87		247.43
Potomska,	North side, between Prospect and Front,			135.67	23.34
Potomska,	North side, between Front and Water,			171.91	45.32
Potomska,	North side, between Water and Acushnet avenue,			490.78	84.86
Robeson,	North side, between County and Ashland,		9.39		10.73
Second,	West side, between Grinnell and Howland,			444.39	67.55
Second,	West side, between Howland and Griffin,		191.47		44.63
Second,	West side, between Griffin and Cannon,		407.80		102.80
Second,	West side, between Spring and Union, (north driveway, police station,)			57.11	11.12
Sixth,	West side, between Wing and Bedford,			39.29	12.56

CONCRETE — REPAIRED — *Continued.*

STREET.	LOCATION.	NEW.	Rebuilt. Sq. yards.	Top Coat. Sq. yards.	COST.
State, Sycamore, Thomas, Water, Water, Willis,	West side, between Campbell and Willis, North side, between County and Summer, West side, between Maxfield and Sycamore, West side, between Blackmer and Rivet, East side, north of Potomska, North side, between Acushnet avenue and Purchase street, Sundry small repairs,		50.56	60.39 14.55 112.57 48.84, 199.03	10.87 3.83 14.28 24.97 12.84 27.05 258.86
		141.55	1,982.00	4,495.04	\$1,987.82
Area in square yards, rebuilt,	1,982	Cost per square yard,			\$0.441
Area in square yards, top coat,	4,495.04	Cost per square yard,			.19

GRAVEL AND CINDER WALKS.

STREET.	LOCATION.	Graded and covered with stone screenings.	Cinders covered with stone screenings.
Ash,	West side, south of Kempton. West side, between Kempton and Hillman, North side, between Ashland and Cottage, Both sides, between Cedar street and Shawmut avenue, Both sides, between Kempton and Mill, East side, between Cedar Grove and Coggeshall, East side, north of Sawyer, East side, south of Rivet, East side, north of Thompson, West side, south of Union, North side, between Belleville and Acushnet avenue, South side, east of Belleville avenue, East side, between Bedford and Grove, East side, between Locust and Robeson, Both sides, between Brownell and Reed, North side, west of Reed, East side, south of Rockland, West side, between Court and Kempton, East side, between Logan and Kilburn, West side, between Coggeshall and Holly, Both sides, west of Shawmut avenue, South side, east of Rural, East side, north of Parker, North side, east of Water,	\$33.21 56.20 27.36 499.97 30.46 88.41 35.32 25.34 26.29 211.69 31.38 288.34 38.37 40.56	\$26.20 40.36 28.05 32.13 40.83 55.23 173.77 141.17 59.48 39.64
Ash,			
Austin,			
Austin,			
Beech,			
Belleville av.,			
Belleville av.,			
Bolton road,			
Bonney,			
Brownell,			
Bullard,			
Coggeshall,			
Cottage,			
Cottage,			
Court,			
Court,			
Dartmouth,			
Florence,			
Front,			
Front,			
Grand,			
Grape,			
Homer,			
Howland,			

James, James, Jenney, Nye, Oak, Palmer, Park, Pleasant, Pope, Rivet, Rounds, Salisbury, Stapleton, State, Topham, Tremont, Union, Washburn, Washburn, William, Wilson, Wilson,	East side, between Arnold and Union, West side, between Arnold and Union, East side, between Court and Kempton, North side, between Belleville and Acushnet avenue, East side, between Grape and Allen, East side, south of Kempton, West side, between Arnold and Union, East side, between Union and William, North side, east of Acushnet avenue, South side, east of Bolton road, East side, south of Kempton, East side, south of Cove, Both sides, south of Cove, West side, between Weld and Clark, North side, east of Shawmut avenue, West side, between Arnold and Union, South side, between James and Rounds, South side, east of Acushnet avenue, North side, east of Acushnet avenue, North side, east of Pleasant, East side, between Austin and Durfee, West side, between Austin and Durfee, Sundry streets, costing between \$2 and \$25, Sundry small repairs,	35.79 52.47 113.62 28.63 76.16 42.50 40.78 29.27 59.84 33.50 44.90 26.87 76.83 32.43 30.55 60.78 34.63 38.71 425.98 221.82 232.51 975.44 78.05
	58.78 44.53 30.55 60.78 34.63 38.71 425.98	
	\$2,126.96	\$2,838.27
Total cost,	\$4,965.23	

DRAINS LAID.

Number.	Size Pipe.	Length.	Cost.	Average cost per foot.
3	4 inch	85 feet	\$59.63	\$.701
169	5 inch	7,189 feet	1,833.18	.255
108	6 inch	6,644 feet	2,307.27	.347
4	8 inch	836 feet	379.66	.454
2	10 inch	40 feet	20.00	.50
1	12 inch	196 feet	87.98	.449
287		14,990 feet	\$4,687.72	\$.312

DRAINS REPAIRED.

Number.	Size Pipe.	Length.	Cost.	Average cost per foot.
1	4 inch	20 feet	\$ 5.10	\$.255
21	5 inch	394 feet	92.45	.234
14	6 inch	681 feet	184.40	.271
36		1,095 feet	\$281.95	\$.257

DRAINS CLEARED.

133 drains cleared, \$250.20

Total cost of drains new, repaired and cleared, \$5,219.87

RECAPITULATION—HIGHWAYS AND STREETS.

GROSS EXPENDITURES.

ACCOUNTS AS PER TABLES:

Macadam, new,	\$8,980.70
Macadam, rebuilt,	11,055.13
Macadam, repaired,	4,486.72
Streets filled and graded,	12,203.62
Curbing, new and relaid,	4,364.89
Gutters, new,	1,758.75
Gutters, repaired,	3,238.71
Concrete sidewalks, new,	2,288.84
Concrete sidewalks, repaired,	1,987.82
Gravel and cinder sidewalks,	4,965.23
Paving, new,	2,806.81
Paving, repaired,	7,934.11
Flagging, repaired,	2,522.48
Crosswalks, new,	624.36
° Crosswalks, repaired,	645.58
Drains, new, repaired and cleared,	5,219.87

ACCOUNTS NOT INCLUDED IN TABLES:

Sweeping and cleaning streets,	\$7,002.15
Removing snow and ice,	319.30
Sanding icy walks,	15.68
Picking up small stones,	622.89
Carting stock to city stable yard,	41.46
Carpenter shop,	255.39
Labor, city stable yard,	649.30
Tool houses repaired,	13.01
Filling holes in streets,	1,000.14
Tools, new and repaired,	206.82
Oil,	104.14
Hack hire,	126.40
Paint shop,	78.64
Janitor,	212.00
Stable office expenses, including salaries,	864.11
Main office expenses, including salaries,	7,072.71
Registration clerk,	203.85
Road scrapers,	484.81
Pump repaired, Lund's Corner,	5.86
New steam road roller, crusher, engine and boiler,	6,640.00
Coggeshall street bridge,	11.94

Phillips road bridge,	\$41.64
Printing annual reports,	56.12
Printing, telephone, etc.,	154.55
Whale line, oatmeal, lanterns, extinguishers, plow, etc.,	194.49
Expenses, Public Works convention, Buffalo,	88.96
Investigating subject of underground wires,	369.61
Fairbank scales,	300.00
Estimating damages sundry streets,	110.00
Advertising,	417.30
Sundry small repairs,	82.30
Miscellaneous items,	490.07

STOCK, LABOR AND TEAMING :

General sewers,	\$2,358.69	
Sundry sewers,	3,357.08	
Collecting ashes,	6,623.17	
Moving snow and ice,	303.60	
New Bedford and Fairhaven bridge,	21.06	
Parks and squares,	116.89	
Park Commission,	2,995.74	
Engineering department,	381.98	
New Bedford poor department,	549.67	
New Bedford water works,	41.84	
New Bedford school department,	7.45	
City property,	49.07	
Incidentals, (tree trimming,)	743.56	
Layout and acceptance of Sears court,	263.63	
Cemeteries,	25.29	
Sundry parties,	2,022.81	19,861.53
Stock on hand, January 7, 1895,		6,845.93
		<hr/> \$130,026.43

CREDITS.

Appropriation,	\$71,020.00	
Special appropriation,	30,000.00	
* Transferred from unappropriated funds,	\$9,590.28	
Received for stock, labor and team- ing,	15,865.68	25,455.96
Stock on hand, January 1, 1894,		3,306.98
Transfer to balance,	243.49	\$130,026.43

*This amount, including stock, labor and teaming furnished sundry departments and outside parties, was credited to unappropriated funds, and afterwards was transferred to highways and streets, to which it rightfully belonged.

NET EXPENDITURES, HIGHWAYS AND STREETS.

Appropriation,	\$71,020.00	
Special appropriation,	30,000.00	
Transfer to balance,	243.49	\$101,263.49

COLLECTING ASHES.

DR.

* Cost of collecting ashes,	\$7,515.43	
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CR.

Appropriation,	\$7,000.00	
Credit from Howland street dock for filling,	892.26	\$7,892.26
Expended,		<u>7,515.43</u>
Transferred to balance,		\$376.83

MOVING SNOW AND ICE.

DR.

Labor, moving snow,	\$1,452.74	
Labor furnished city property,	47.26	
Stock furnished general sewers,	5.00	\$1,505.00

CR.

Appropriation,	\$1,500.00	
Credit,	5.00	\$1,505.00

LAYOUT AND ACCEPTANCE OF SEARS COURT
FROM PURCHASE TO PLEASANT.

DR.

Screening sidewalk,	\$91.12	
Cost of block paving,	333.54	
Building eyeholes,	41.63	
New concrete,	71.71	\$538.00

CR.

Brought forward from 1893,	\$1,000.00	
Expended,		<u>538.00</u>
Transferred to balance,		\$462.00

* Of this sum \$6,623.17 is charged in the account of streets filled and graded.

NEW BEDFORD AND FAIRHAVEN BRIDGE.

Cobble paving repaired,	\$14.42
Repairing wall,	31.20
Salaries of draw tender and assistant,	1,148.05
Painting and repairs to woodwork,	1,538.37
Coal,	12.15
Salt,	2.40
Oil,	1.93
Sand box,	4.74
Moving snow,	35.99
	<hr/>
	\$2,789.25

CREDITS.

Appropriation,	\$3,500.00
Total outlay,	2,789.25
	<hr/>
Transfer to balance,	\$710.75

DETAILS OF SEWERS CONSTRUCTED IN 1894.

STREET.	LOCATION.	LENGTH AND SIZE OF PIPE.						TOTAL LENGTH.	Greatest cut.	Average cut.	Greatest cut in ledge.	Average cut in ledge.	Cubic y'ds ledge.	Cubic y'ds earth.	TOTAL CUBIC YDS EXCAVATION.	No. of manholes.	Pitch in feet per 100 feet.	CONSTRUCTION. [Payroll includes all labor at sewer]	Cost of payroll per foot of length.	Teaming, sharp-pointed pipe, brick, lumber, & granite, etc.	TOTAL COST OF SEWERS.	Total cost per ft. in length.	AMT ASSESSED.		
		8 inch.	10 inch.	12 inch.	15 inch.	18 inch.	24 inch.																	Brick.	
BY SPECIAL APPROPRIATION.																									
Acushnet avenue, No. 19.	Pope to Seneca,			140.5			152		140.50	6.28	6.06			1.3	110.37	110.37	1	.50	\$62.20	\$.44	\$43.96	\$106.16	\$.76		
Acushnet avenue, No. 2.	Campbell to Willis,								152	8.05	6.79	2.9	1.4		140.34	141.64	1	1	100.28	.66	191.68	291.96	1.92		
Belleville avenue, No. 4.	Belleville avenue to west line Front,		512.7						512.70	12.28	11.43	6	4.12	81.2	639.80	712	1	1.50	865.04	1.69	250.13	1,115.17	2.18	\$557.59	
Belleville avenue, No. 5.	Coggeshall north 255.50 feet,		287.5						287.50	11.37	9.47	9.4	4.25	46.87	805.13	362	1	.50	436.30	1.45	238.42	674.62	2.35	337.31	
	Coggeshall south 100 feet,		132						132	7.57	7.18				129.53	129.53	1	.50	63.37	.48	58.71	122.69	.92	60.05	
	Cove road to 262 feet south of Rivet,				1543			1559.18	1559.18	13					3723	3723	4	.2334	12,106.97	7.77	12,829.55	24,936.92	15.55		
Central Engine House drain, sewer.	From 3.72 feet north of Arnold north 139.70 feet,	208	139.7						208	10.10	9.18					141.43		1	.50	99.23	.47	202.25	301.48	1.45	
Ark. No. 3.	Myrtle to Mount Pleasant,		571.7						571.70	7.53	7.35	5.6	3.9	9.1	134.83	133.93	1	.50	85.10	.61	59.63	144.73	1.04	72.37	
	From 2.60 to 537.40 feet east of Front,			488.3	21		529		534.80	3.80	3.53				353	353	2	.10	900.29	.80	1,399.71	2,000.00	3.71		
Davis, Elm,	Acushnet avenue to Creek,			1537		539			2076	10.44	9.89			800	157.58	157.58	1	1	1,108.01	.62	326.17	1,763.22	5.04		
Commercial and Water,	From east line Rounds west 143.4 feet,		143.4						143.40	11.02	6.96	10	4.99	81.35	354.38	435.73	3	.50	89.92	1.86	57.23	147.15	1.63	73.58	
	Union to Spring,				521.7				521.70	12.94	9	6.9	3.73	152.37	693.74	846.11	3	.40	971.87	1.86	536.93	1,508.80	2.89	734.40	
Maple, No. 2.	Ash to Atlantic,		8	45	530.4		408		983.40	12.94	9	6.9	3.73	152.37	693.74	846.11	3	.40	1,882.35	1.41	1,158.71	2,536.06	2.58	1,268.03	
Market and Pleasant,	Pleasant west 67.60 feet,				72.1				72.10	16.80	16.39				155.57	155.87	1	.50	246.76	.32	82.69	329.45	4.57		
Mitchell,	Coggeshall to Sawyer,		770.7						770.70	10.44	8.44				843.20	843.20	1	.50	379.05	.49	265.88	644.93	.84	322.47	
Belleville, No. 15.	Logan to Linden,						449.7		449.70	12	10.92				724.55	724.55	1	.50	611.82	1.36	561.47	1,173.29	2.61		
	Elm north 300 feet,		320.2						320.20	9.34	8				395.70	395.70	1	.50	126.41	.39	104.48	230.89	.72	115.45	
	From 206 feet east of Belleville avenue to 187.50 feet west of Belleville avenue,				215.5	209.9	334.6		* * 860	5.95	4.31				424.60	424.60	3	.50	247.28	.29	459.93	707.21	.82	333.60	
		208	2885.9	2382.9	2831.6	748.9	1873.3	1559.18	10,435.28					1172.19	10,150.32	10,663.94	26		\$20,358.18		\$19,127.93	\$39,815.15		\$4,456.66	
BY GENERAL SEWER APPROPRIATION.																									
	East of County to 75 feet east of Ashland,		598.4						598.40	11.99	9.70				753.55	753.55	1	1		.62		141.08	.97		
Howland,	Dock (filling in),								598.40						753.55	753.55	1	22.32				1,679.47			
			598.4						598.40						753.55	753.55	1	6.34				\$1,820.55			
		208	3484.3	2282.9	2831.6	748.9	1873.3	1559.18	11,033.68					1172.19	10,903.87	11,417.49	27		\$20,358.18		\$19,127.93	\$41,635.70		\$4,456.66	

* Lowered.

† Expended for filling, \$7,316.32; 3,721 barrels cement, 327,700 brick used in construction of sewer.

‡ Begun in 1886. Total cost, \$19,463.18. Not assessed. Entrance fee to be \$10.00.

§ Pleasant street sewer built in 1893, at a cost of \$1,141.82.

¶ Total cost, \$581.65; \$440.57 included in stock, labor and teaming furnished sundry parties.

** Includes 100 feet 2 50 x 2 50 box sewer.

CATCH-BASINS—NEW.

STREET.	LOCATION.	COST.
Acushnet av.,	Northwest corner Bedford,	\$94.12
Acushnet av.,	Northwest corner Sawyer,	75.70
Arnold,	Northeast corner Arch,	73.20
Arnold,	Northeast corner Ash,	72.41
Arnold,	Northeast corner Emerson,	71.42
Arnold,	Northeast corner Chancery,	79.97
Austin,	South side, 200 feet west of Cedar,	61.56
Austin,	North side, 200.9 feet west of Cedar,	74.42
Bay,	Northwest corner Ward,	94.34
Belleville av.,	Southwest corner Washburn,	78.39
Belleville av.,	Northwest corner Washburn,	71.21
Belleville av.,	Southwest corner Coggeshall,	79.78
Blackmer,	Northwest corner Second,	69.07
Campbell,	Northwest corner County,	73.14
Campbell,	Northeast corner Shawmut avenue,	79.04
Cedar,	Southwest corner Robeson,	68.78
Davis,	Northwest corner Acushnet avenue,	79.00
Florence,	Southwest corner West Elm,	85.38
Florence,	Southwest corner North,	72.19
Front,	Southwest corner Howland,	73.15
Hickory,	Northwest corner Harrison,	69.22
Hillman,	Southeast corner Cedar,	64.61
Howland,	Southwest corner Prospect,	72.30
James,	East side, 194 feet north of Arnold,	66.18
James,	West side, 199.8 feet north of Arnold,	64.35
James,	Southwest corner Court,	71.12
Katharine,	North side, 193 feet east of Crapo,	77.08
Kempton,	Northeast corner Ash,	83.73
Madison,	Northwest corner Fourth,	73.77
Maple,	Southeast corner Chancery,	81.45
Maple,	Southwest corner Chancery,	85.09
Maple,	Northeast corner Chancery,	71.46
Maple,	Northwest corner Chancery,	73.18
Mill,	Southwest corner Florence,	78.25
Mosher,	South side, 203.51 feet east of Crapo,	89.24
Mosher,	North side, 197.5 feet east of Crapo,	75.40
Newton,	Northwest corner West Elm,	64.40
North,	Northwest corner Foster,	75.96
Park,	Southeast corner West Elm,	80.08
Park,	Northeast corner West Elm,	77.69
Park,	Northwest corner West Elm,	81.01
Parker,	Southwest corner Chestnut,	70.25
Parker,	Northwest corner Chestnut,	70.15
Pleasant,	Northwest corner Union,	72.11
Pleasant,	Northwest corner Maxfield,	67.23
Pleasant,	Northwest corner Hazzard,	80.16
Thompson,	Southeast corner County,	80.63
Union,	Southwest corner Atlantic,	70.24

CATCH-BASINS — NEW — *Continued.*

STREET.	LOCATION.	COST.
Water,	Southwest corner Delano,	71.30
Water,	Southwest corner Potomska,	69.87
Water,	Southwest corner Cannon,	84.87
William,	Northwest corner Eighth,	97.82
Willis,	South side,	70.11
Willis,	Northeast corner Shawmut avenue,	73.01
		<hr/> \$4,079.59

Total number, 54. Average cost, \$75.54.

CATCH-BASINS REPAIRED.

STREET.	LOCATION.	COST.
Acushnet av.,	Northwest corner Potomska,	\$ 7.16
Belleville av.,	Square at Sawyer,	27.21
County,	Northwest corner Cedar Grove,	5.56
Hawthorn,	Northwest corner Tremont,	3.67
Logan,	Northeast corner Front,	3.33
Madison,	Northwest corner Fifth,	3.73
Water,	Foot of North,	6.76
	Sundry small repairs.	156.36
		<hr/> \$213.78

CATCH-BASINS DISCONTINUED.

Pleasant street, west side, 5 feet south of Market.

EYEHOLE BUILT IN 1894.

STREET.	LOCATION.	COST.
Howland, Market, Sears court, Sears court,	Square at Second, South side, between Pleasant and Sixth, 14.8 feet east of west line bank building, 21.7 feet east of west line bank building,	\$20.35 28.85 20.81 20.82
		\$90.83

Total number, 4. Average cost, \$22.71.

EYEHOLE REPAIRED.

STREET.	LOCATION.	COST.
Front,	Between Wamsutta and Logan, Sundry small repairs,	\$13.23 7.75
		\$20.98

CULVERTS AND SURFACE DRAINS—NEW.

STREET.	LOCATION.	L'gth. Feet.	Size pipe. Inch.	COST.
Cedar Grove,	7.40 ft. west of Belleville av.,	24	8	\$6.52
Coffin av.,	7 ft. east of west line Brook st.,	2	10 }	42.20
Front,	Sawyer, north 97.30 feet,	28	15 }	128.70
		138.9	24	
				\$177.42

CULVERTS AND SURFACE DRAINS REPAIRED.

STREET.	LOCATION.	COST.
Front, Hillman,	Southwest corner River road, extended, North side at Liberty, extended, Sundry small repairs,	\$7.04
		15.46
		18.36
		\$30.86

CULVERTS AND SURFACE DRAINS
DISCONTINUED.

STREET.	LOCATION.	Length. Feet.
Front,	Sawyer north 97.30 feet. Water taken into Sawyer street sewer.	50.9

MANHOLES IN OLD SEWERS—NEW.

STREET.	LOCATION.	COST.
Hillman,	Between Acushnet av. and Purchase st.,	\$19.78

MANHOLES REPAIRED.

STREET.	LOCATION.	COST.
Court, Purchase, Thompson, Water,	At Florence, At Austin, West of County, At Howland, Sundry small repairs,	\$2.00
		20.48
		14.96
		9.35
		5.39
		\$52.18

SEWERS REPAIRED.

STREET.	LOCATION.	COST.
Cedar Grove, Orchard, Purchase, South,	Between Austin and Linden, Between Acushnet av. and Fourth st., Sundry small repairs,	\$76.61
		2.00
		87.52
		8.00
		31.19
		\$205.32

SEWERS DISCONTINUED.

STREET.	LOCATION.	SIZE PIPE.	
		12 inch. Feet.	15 inch. Feet.
Belleville ave. Market, Washburn,	and Cedar Grove street, Pleasant west, River to Belleville avenue,		333
		72.1	129.7
		72.1	462.7

Total length, 534.8 feet.

RECAPITULATION.

GROSS EXPENDITURES, GENERAL SEWERS.

ACCOUNTS AS PER TABLES:

Catch-basins built,	\$4,079.59
Catch-basins repaired,	213.78
Manholes built on old sewers,	19.78
Manholes repaired,	52.18
Eyeholes built,	90.83
Eyeholes repaired,	20.98
Culverts and surface drains built,	177.42
Culverts and surface drains repaired,	30.86
Sewer construction,	141.08
Howland street dock, filling in,	1,679.47
Sewers repaired,	205.32

ACCOUNTS NOT INCLUDED IN TABLES:

Tools, new and repaired,	39.39
Catch-basins cleaned,	2,576.99
Eyeholes and culverts cleaned,	31.54
Repairing brook, Belleville avenue,	5.21
Carting stock to city yard,	160.76
Blacksmithing,	432.95
Teaming,	20.33
Tool houses repaired,	3.11
Flushing and puddling sewers,	310.75
Repairs to steam drills,	214.78
Repairs to steam pump,	26.66
Rebate on sewer assessments,	63.66
Plank, marline, brush, whale line,	276.24
Lanterns, hemp filling, oatmeal, pails, etc.,	152.76
Pine grounds, branding iron, lumber, grade line,	31.13
Hose and couplings,	220.40
Specifications,	61.95
Expenses, Garcia case,	61.00
Labor handling stock at city yard,	7.84
Diaphragm pumps repaired,	1.00
Boilers repaired,	84.91
Hoisting engine repaired,	23.15
Stock furnished highways and streets,	275.26
Stock furnished sundry persons,	431.54
Stock furnished Park Commission,	232.94

Stock furnished layout and acceptance of		
Sears court,	41.63	
Stock furnished sundry sewers,	3,103.46	
General repairs,	135.96	
Carson trench machine,	2,003.74	
Miscellaneous items,	226.58	
Stock on hand, January 5, 1895,	5,076.15	
Transferred to Davis street sewer,	200.00	\$23,245.06

Cr.

Appropriation,	\$15,000.00	
Received from unappropriated funds,	171.25	
Received for stock,	3,677.05	
Stock on hand, January 1, 1894,	4,682.16	\$23,530.46
Expended,		23,245.06
Balance,		\$285.40

NET EXPENDITURES, GENERAL SEWERS.

Appropriation,	\$15,000.00	
Transferred to balance other accounts,	285.40	\$14,714.60

NEW SEWERS.

Dr.

Sundry sewers built,	\$39,815.15
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Cr.

Sundry appropriations,	\$42,447.69	
Balance from last year,	1,358.18	
Transferred from general sewers,	200.00	
Transferred from unappropriated funds,	763.22	\$44,769.09
Expended,		39,815.15
Transfer to balance,		\$4,953.94

PARKS AND SQUARES.

Dr.

COMMON.

Labor, care of Common,	\$179.50	
Repairing eyeholes,	1.10	
Removing fence,	14.86	\$195.46

CITY HALL SQUARE.

Labor, care of square,	\$11.02	\$11.02
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CLARKS POINT PARK.

Labor,	\$10.00	
Removing fence,	10.17	
Blocks and shieves,	8.95	\$29.12

BROOKLAWN PARK.

Labor, care of park,	\$158.66	
Carting,	1.75	\$160.41

BUTTONWOOD PARK.

Breaking stone,	\$81.57	
Labor, watchman,	82.00	
Carting,	10.40	
Blacksmithing,	106.84	\$280.81

RECAPITULATION.

Common,	\$195.46	
City Hall square,	11.02	
Clarks Point park,	29.12	
Brooklawn park,	160.41	
Buttonwood park,	280.81	\$676.82

CREDITS.

Brought forward from 1893,	\$1,879.81
Expended,	676.82
Transferred to Park Commission,	\$1,202.99

HIGHWAYS AND STREETS.

	Miles.	Length Linear ft.	Area Sq. yds.	Trees.
Streets,	117.66	621,270		4,953
Block paving,	1.75	9,269	23,138	
Cobble paving,	16.29	86,008	207,214	
Macadam,	31.94	168,674	399,648	
Dirt,	56.52	298,434	840,388	
Sidewalks,	156.24	824,973	110,041	
Flagging 2 feet wide,	.95	5,001		
" 4 feet wide,	25.60	135,183		
" 6 feet wide,	1.23	6,534		
" 8 feet wide,	6.69	35,329		
" 10 feet wide,	1.75	9,273		
Concrete, 2 feet wide,	.51	2,999	99,582	
" 4 feet wide,	4.37	23,091		
" 6 feet wide,	.84	4,421		
" 8 feet wide,	15.79	83,359		
" 10 feet wide,	1.78	9,419		
Granolithic, 8 feet wide,		91		
" 10 feet wide,		510	637	
Screenings, cinder, dirt etc.,			419,776	
6 feet wide,	2.15	11,371		
8 feet wide,	10.17	53,724		
10 feet wide,	21.41	113,072		
Crosswalks,	1.81	9,579		
Curbing :				
Long stone,	43.33	228,829		
Short stone,	24.77	130,822		
Gutters,	76.58	400,436	144,222	
Crosswalks, 15 inch stone,	.36	1,901		
" 18 inch stone,	3.69	19,493		
" 24 inch stone,	.44	2,335		
Cobble stone aprons,			1,638	
Concrete,	.47	2,474	1,782	
Unimproved streets,	17.78	93,880		
Unimproved sidewalks,	83.42	439,458		

HIGHWAYS AND STREETS — *Continued.*

	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Macadam, new,	\$7,327.46	\$10,713.09	\$14,417.13	\$15,285.90	\$15,725.32	\$17,043.81	\$8,980.70
Macadam, repaired,	15,309.30	2,545.68	6,828.60	3,060.06	6,129.47	4,444.94	4,486.72
Macadam, rebuilt,			2,962.88	4,157.35	3,626.29	4,910.70	11,055.13
Streets filled and graded,	23,515.90	19,047.81	23,545.36	26,943.00	23,447.85	26,564.34	19,771.51
Curbings, new and relaid,				13,054.35	18,285.09	9,405.93	4,364.89
Gutters, new,	9,142.70	9,785.23	14,253.85	5,123.92	2,699.50	3,034.17	1,758.75
Gutters, repaired,				1,790.14	2,608.61	1,978.86	3,238.71
Concrete sidewalks, new,	3,988.80	1,329.42	3,965.74	1,957.20	2,576.33	2,596.76	2,288.84
Concrete sidewalks, repaired,	140.06	406.15	143.56	2,583.60	2,023.20	2,252.86	1,987.82
Gravel and cinder sidewalks,	1,535.79	3,004.70	3,479.42	5,280.59	7,140.97	8,202.82	4,965.23
Paving, new,	2,297.32	5,906.87	6,420.72	11,639.17	5,580.15	18,540.33	2,806.81
Paving, repaired,	3,077.24	4,577.14	2,554.43	5,315.72	6,306.04	7,557.33	7,934.11
Flagging, new,	788.50	571.64	1,211.43	3,167.56	3,793.63	4,380.69	2,522.48
Flagging, repaired,	2,355.70	1,727.92	3,054.67	1,762.89	3,027.63	255.09	624.36
Crosswalks, new,	1,062.98	1,031.25	1,347.32	542.72	566.60	1,656.32	645.58
Crosswalks, repaired,	326.87	222.12	773.28		9,097.40	8,992.02	5,219.87
Drains, new, repaired and cleaned,			3,469.12	5,786.23	7,849.93	8,247.18	6,057.43
Sweeping and cleaning streets,			367.08	432.87	890.59	2,313.98	1,839.98
Removing snow and ice,							
Collecting ashes:							
Cost of collecting,							
Credits for filling,							
Net cost,							
Trimming trees,		401.13	5,855.73	6,911.76	7,439.04	8,311.53	7,515.43
Filling holes in streets,			3,154.20	3,106.25	1,699.46	1,635.58	892.26
			2,701.53	3,805.51	5,739.58	6,675.95	6,623.17
			457.94	534.18	623.31	725.45	743.56
			497.17	511.55	417.09	780.51	1,000.14

MACADAM.	* 1888.	* 1889.	1890.	1891.	1892.	1893.	1894.
New:							
Length in feet,							
Area in square yards,	6,904	8,458	10,412	10,633	10,676	9,229	5,751
Tons of stone used,	14,318	16,916	25,059	26,399	25,644	23,498	12,306
Total cost,	5,943	9,546	11,417	12,077	11,843	11,474	6,765
Cost per square yard,	\$7,327.46	\$10,904.97	\$14,417.13	\$15,285.90	\$15,725.00	\$17,043.81	\$8,980.00
Cost per ton of stone,	.511	.644	.575	.58	.613	.725	.633
Average tons of stone used	1.232	1.037	1.262	1.0172	1.328	1.485	1.359
Rebuilt:							
Length in feet,	.415	.564	.455	.458	.462	.488	.466
Area in square yards,							
Tons of stone used,							
Total cost,			2,737	4,115	4,013	4,395	10,992
Cost per square yard,			5,428	8,733	8,755	8,804	22,142
Cost per ton of stone,			1,949	2,676	2,500	3,137	8,588
Average tons of stone used			\$2,965.88	\$4,157.35	\$3,626.23	\$4,910.70	\$11,055.00
per square yard,			.546	.475	.414	.557	.499
Repaired:			1.521	1.553	1.45	1.565	1.287
Length in feet,			.359	.306	.285	.356	.387
Area in square yards,	19,298	4,023	9,948	2,589	4,331	3,132	1,952
Tons of stone used,	9,454	6,511	19,093	7,406	16,376	8,011	3,915
Total cost,	\$15,309.30	1,308	3,909	1,215	3,999	2,170	1,598
Cost per square yard,		\$2,262.00	\$6,825.00	\$3,060.00	\$6,129.00	\$4,445.00	\$4,486.00
Cost per ton of stone,		.241	.309	.274	.295	.402	.392
Average tons of stone used	1.619	1.35	1.509	1.672	1.315	1.512	1.367
per square yard,		.179	.204	.164	.223	.271	.282
Total cost of all repairs,	\$15,309.30	\$2,262.00	\$9,790.00	\$7,217.00	\$9,755.00	\$9,355.00	\$15,541.00
Streets graveled and graded:							
Cost,		19,047.81	23,545.36	26,943.00	23,447.85	26,564.34	19,771.51

* Includes macadam rebuilt, as there is no way of separating the two.

HIGHWAYS AND STREETS—Continued.

STEAM ROLLER.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Repairs, } Supplies, }	\$497.63	\$704.97	\$846.00 {	\$531.22	\$886.45	\$330.00	\$509.98	\$651.87
Accident, repairs, }				222.16	289.71	430.92	195.50	215.88
Labor, }						698.71		
Total,	1,067.00	1,067.00	1,067.00	577.99	586.50	753.80	608.09	583.33
Hours run,	1,564.63	1,771.97	1,913.00	1,331.37	1,762.66	2,222.43	1,313.57	1,451.08
Engineer and helper,	1,064	1,029	702	1,156	1,173	1,451	1,186	1,112
per hour,	\$1.00	\$1.037	\$1.52	\$.50	\$.50	\$.52	\$.513	\$.524
Per hour per year,	1.47	1.722	2.725	1.15	1.50	1.53	1.107	1.304
Per hour with interest,	1.809	2.07	3.23	1.46	1.81	1.66	1.26	1.47
Per hour with interest								
and depreciation,	2.28	2.55	3.95	1.895	2.24	1.87	1.53	2.37*
Per hour for supplies,				.192	.247	.297	.164	.193

* Allowing \$1,000 depreciation in one year. With 10 per cent. depreciation the cost would be \$1.75.

STEAM ROLLER.					
	1890.	1891.	1892.	1893.	1894.
Cost of rolling macadam :					
Number of hours, new,	400	671	690	661	305
Number of hours, repaired,	405	197	367	201	158
Number of hours, rebuilt,	144	164	256	316	649
Cost per square yard, new,	\$.032	\$.05	\$.053	\$.057	\$.049
Cost per square yard, repaired,	.0378	.053	.041	.050	.050
Cost per square yard, rebuilt,	.053	.037	.058	.071	.058
Cost per ton, new,	.07	.11	.16	.116	.106
Cost per ton, repaired,	.207	.324	.183	.184	.197
Cost per ton, rebuilt,	.147	.123	.204	.214	.151

HIGHWAYS AND STREETS — *Continued.*

CRUSHERS.	1890.	1891.	1892.	1893.	1894.
Centre crusher:					
Tons of crushed stone, large,		9,363	7,631	8,429	8,675
Tons of fine crushed stone,			3,080	3,139	2,058
Tons of screenings,		3,905	3,902	6,042	4,762
Proportion of screenings to stone crushed,		29.4%	26.7%	34.3%	30.7%
Cost of stone per ton,	\$.4419	\$.4464	\$.4362	\$.4886	\$.3492
Cost of crushing stone per ton,	.3248	.3230	.3682	.3051	.2595
Total cost of crushed stone per ton,	.7667	.7694	.8044	.7937	.6087
Portable crusher:					
Tons of crushed stone,		5,879	7,318	5,088	7,633
Tons of screenings,		1,323	1,833	1,152	2,014
Proportion of screenings to stone crushed,		18.3%	20 %	18.4%	20.8%
Tons of crushed stone,		7,203	9,142	6,241	9,627
Cost of stone per ton,	\$.3632	\$.3258	\$.3912	\$.4422	\$.416
Cost of crushing stone per ton,	.3562	.3664	.3621	.4229	.3629
Total cost of crushed stone per ton,	.7224	.6922	.7533	.8651	.7789

CURBING.	1889.	1890.	1891.	1892.	1893.	1894.
New:						
Length,			17,206	25,201	9,076	4,193
Cost,	\$.716	\$.823	\$12,047.44	\$16,762.82	\$5,906.80	\$2,684.38
Cost per foot,			\$.70	.665	.65	.64
Cost of stone per foot,	.53	.54	.54	.485	.48	.47
Cost per foot for labor,	.186	.283	.16	.18	.17	.17
Relaid with new curbing:						
Length,				1,426	3,105	1,855
Cost per foot,				.694	.682	.686
Relaid with old curbing:						
Length,			5,245	4,395	9,063	2,023
Cost per foot,		.178	.129	.123	.118	.117

HIGHWAYS AND STREETS — *Continued.*

GUTTERS.		1891.	1892.	1893.	1894.
New:					
Length in feet,		20,937	10,909	11,560	11,233
Average width,		3.49	3.81	3.93	3.94
Area in square yards,		8,141	4,627	5,055	4,929
Cost,		\$5,123.92	\$2,699.50	\$3,034.17	\$2,720.94
Cost per square yard,		.629	.583	.60	.552
Cost per foot in length of average width,		.244	.247	.262	.242
Repaired:					
Length in feet,		13,369	19,109	17,111	17,728
Area in square yards,			7,968	6,759	6,744
Cost,		\$1,790.14	\$2,608.61	\$1,978.86	\$2,276.52
Cost per square yard,			.327	.292	.322
Cost per foot in length,		.133	.136	.115	.128

CONCRETE.		1889.	1890.	1891.	1892.	1893.	1894.
New:	Area in square yards,						
	Cost,	2,543	6,349	3,416	5,342	5,355	4,901
	Cost per square yard,	\$1,293.82	\$3,965.74	\$1,957.20	\$2,576.33	\$2,596.76	\$2,288.84
	Rebuilt:	.508	.624	.572	.482	.485	.478
Top coat:	Area in square yards,						
	Cost per square yard,				2,490	2,774	1,982
	Cost per square yard,				\$.422	\$.423	\$.441
	Area in square yards,				2,461	3,589	4,495
	Cost per square yard,				\$.157	\$.231	\$.19

CONCRETE CROSSWALKS.		1890.	1891.	1892.	1893.	1894.
New:	Area in square yards,					
	Cost per square yard,	396	735	517	209	435
		\$1.087	\$.911	\$.75	\$.72	\$.66

HIGHWAYS AND STREETS—Continued.

PAVING.	1889.	1890.	1891.	1892.	1893.	1894.
New—Block:						
Area in square yards,						
Cost,	1,301	\$4,778.00	3,394	2,039	7,406	1,445
Cost per square yard,	\$3,103.00	2.29	\$8,045.18	\$6,367.54	\$16,037.52	\$2,677.64
Cobble:	2.38		2.37	3.123	2.165	2.049
Area in square yards,						
Cost,	5,684	\$1,642.00	7,020	4,888	5,719	401
Cost per square yard,	\$2,803.00	.437	\$3,594.00	\$2,341.27	\$2,290.90	\$129.17
Total cost of new paving,	.491		.511	.479	.405	.366
Relaid cobble:	5,906.00	6,420.00	11,639.17	8,708.81	18,540.33	2,806.81
Area in square yards,						
Cost,	3,209	1,177	10,842	5,372	7,079	16,923
Cost per square yard,	\$1,079.00	\$373.00	\$3,575.00	\$1,883.00	\$2,557.00	\$7,121.00
Total cost of paving repairs,	.336	.316	.329	.35	.361	.332
	4,417.39	2,554.00	5,315.72	6,306.04	7,557.33	7,934.11

FLAGGING.	1889.	1890.	1891.	1892.	1893.	1884.
New:						
Cost per square foot,	\$.17	\$.163	\$.1425	\$.16	\$.16	\$.1525
Cost per square yard,	1.53	1.467	1.2825	1.44	1.44	1.3725
Repaired:						
Area in square yards,	5,792		3,268.7	2,418.77	4,351.81	1,361.39
Area new flagging,			881.8	1,246.91	1,438.94	898.25
Area old flagging,			2,404.9	1,171.86	2,912.87	463.14
Cost,	\$2,299.56	\$4,266.10	\$3,167.56	\$3,793.63	\$4,380.69	\$1,577.77
Cost per square yard of relaying new stone,			1.61	1.771	1.736	1.538
Cost per square yard of relaying old stone,			.432	.471	.471	.425
Gravel and cinder walks:						
Cost,	3,004.70	3,479.42	5,280.59	7,140.97	8,202.82	4,965.23

HIGHWAYS AND STREETS — Continued.

DRAINS.		1892.	1893.	1894.
New pipe furnished by city:				
Number,		439	187	
Length in feet,		17,487	10,588	
Cost,		\$8,256.39	\$5,193.18	
Average cost per foot with 4-inch pipe,		\$.402	\$.376	
Average cost per foot with 5-inch pipe,		.476	.430	
Average cost per foot with 6-inch pipe,		.754*	.398	
Average cost per foot with 8-inch pipe,		.469	1.651*	
Average cost per foot with 10-inch pipe,		.660		
Average cost per foot with 15-inch pipe,				
New pipe not furnished by the city:				
Number,		44	251	287
Length in feet,				14,990
Cost,		\$263.89	\$3,157.90	\$4,687.73
Average cost per foot with 4-inch pipe,				.701
Average cost per foot with 5-inch pipe,				.255
Average cost per foot with 6-inch pipe,				.347
Average cost per foot with 8-inch pipe,				.454
Average cost per foot with 10-inch pipe,				.500
Average cost per foot with 15-inch pipe,				.449

* Including manhole castings.

DRAINS.	1892.	1893.	1894.
Total number of new drains,	483	438	287
Total cost of new drains,	\$8,520.28	\$8,351.08	\$4,687.72
Repaired :			
Number,	45	54	36
Cost,	\$366.22	\$305.37	\$281.95
Cleared :			
Number,	77	127	133
Cost,	\$210.90	\$335.57	\$250.20
Total cost of drains, new, repaired and cleared,	9,097.40	8,992.02	5,219.87

REPORT OF THE COMMITTEE
ON
UNDERGROUND WIRES,

OCTOBER 5, 1894

REPORT.

NEW BEDFORD, Mass., Oct. 5, 1894.

The representatives of the Board of Public Works and of the Board of Trade who were commissioned to visit different cities to investigate the general question of putting wires underground have made their tour, visiting seven cities, viz. : Buffalo, Chicago, Detroit, Cincinnati, Washington, Philadelphia, New York. We have collected a large amount of material and knowledge of detail, the possession of which by the Board of Public Works cannot fail to vastly benefit the city. As we proceeded from place to place, the accumulating facts were constantly sifted, classified, and discussed. Those which fitted were applied to the existing conditions in our own city. By the time we reached home we had each arrived at certain conclusions. It was a source of some satisfaction to ourselves at least, to find that the evidence collected had gradually brought our views nearer and nearer together. We practically agree on so many of the chief conclusions that we have decided to submit a joint report of those results to which we can all subscribe. This report will endeavor to summarize the information gathered, and formulate briefly the conclusions and recommendations. Each member can then amplify this report to his own Board, — supplying the many facts that led up to our conclusions. It is also intended to assemble later the mass of details — including documents and statistics, into an appendix to this report.

We started in to ascertain the general principles which have governed other cities in their settlement of this prob-

lem, but soon found that it was just as necessary to learn the application of these principles in detail.

For instance, in any city we would first ask the general question "Does your city build and own its own conduits?"—and if we found that they did, it was necessary at once to ask, "How are they built? Of what material? Are the high and low tension wires separated? Do you place them under the sidewalks? Do the different companies using them have separate manholes? What do they cost? How do you determine upon the rental for the different corporations? Do you make or lose money out of this municipal investment?" etc.

But if we learned that the city did not build the conduits, but granted franchises to corporations to build them under the city streets, then it was all important to find out what kind of a franchise was granted and what degree of municipal control the city authorities exercised over them. This inquiry led us to an examination of all the regulations by which the interests of the city were guaranteed. We were all united in the belief that our trip would be a failure if we simply learned that most cities granted franchises without exerting ourselves to find out the exact nature of the franchises which gave away to corporations such valuable rights in the public streets. We have all too recently seen towns so wildly excited over the question—to which company shall we grant a railway franchise?—as to entirely ignore the all important question—what kind of a franchise shall we grant? Nor can we in New Bedford afford to laugh much at our neighbors, at their thoughtless liberality in these particular matters.

There was a bill defeated in the Massachusetts Legislature last year which would have empowered any city so desiring to engage in the business of building underground conduits for wires and compelling electrical companies to put their wires in them and to pay the city an annual rental for the use of the conduit.

There are very many of our citizens, who believe without giving the subject much thought, that this course would be the best for New Bedford. Knowing well this belief of many of our citizens and leaning somewhat themselves in this direction, your committee started out with this idea uppermost. And now in reviewing their notes of the experience of the different cities which were investigated, it can be said that none of them could furnish the committee with the example they sought of the city's ownership of the conduit.

All of them had granted rights to the companies to build conduits in the streets, and were continually forcing them to ask for more rights, by ordering more wires underground.

It must though, be made clear that some of these cities had themselves built city conduits for the city's own wires. Chicago does its own street lighting, and so owns a large number of electric light wires. These with the city's telephone wires, and fire alarm, police signal, and telegraph, were sufficient to fill quite a large conduit system.

Philadelphia goes a little further. In building conduits for the city's wires, it has spread out over the city, and by constructing them much larger than the city needs, it has leased ducts in those conduits to different companies. But these companies have conduits of their own and only hire space in those of the city where it is cheaper for them than building separate conduits for themselves in those streets.

Detroit goes still further in another particular. It has one pet thoroughfare and public space which cannot be dug up and its beautiful concrete surface spoiled by any corporations. So the city has built a large oval brick tunnel through which we easily walked, and all companies are obliged to hire space in it who desire to get their wires across that avenue.

New York perhaps came the nearest to furnishing the example which we sought to find, but still with one very important change. All the different companies were compelled to hire their portion of space in one great system of conduits, but the ownership of these conduits did not rest in the city, but in a gigantic corporation, "The Subway Company,"—to whom the city had granted the monopoly of building and leasing underground conduits, and had furnished them plenty of business by ordering all wires to be placed underground. Your representatives are obliged to report that they found no case of genuine municipal ownership of all the conduits even among the large cities which could best afford the outlay which such an enterprise must entail.

The custom which they did find in every city they visited was for the city to grant a franchise to the companies to build their own conduits. But the manner of building these conduits and the control which the city was always to have over them and the methods of using them were defined by ordinances and regulations which varied much in the different cities.

It is not possible in the limits of this report to go into a full discussion of the advantages and disadvantages of municipal ownership of conduits. But to get a clearer knowledge of this question was the main purpose of our investigation and it is to this that we have given the closest thought. As a result of this study we each seemed to have followed a similar chain of reasoning and to have arrived at a clear proposition. This can be fairly stated as follows:—

There is a satisfaction in the very idea of absolute ownership. For this satisfaction the owner generally has to pay the cost of securing that ownership.

But there is a degree of control of another man's property which, if it can be secured, is as advantageous to hold as the actual ownership of that property.

Sometimes this degree of control of another man's property can be secured for very much less money than the actual ownership of it. When this is possible is it worth while to insist on actual ownership, and pay the cost of it?

Or to state our proposition,—we are now united in the belief that a corporation can be granted right to build a conduit in certain definite streets of this city and that the franchise can be so framed as to make the existing condition as satisfactory to the city as if it built and owned the conduit.

Of course in practice, such a franchise might not be accepted by the company. But since examining the regulations and conditions exacted by other cities we have come to believe that a franchise can be framed which will confer on the city all those advantages of ownership which it really needs, and still be advantageous and equitable to the petitioning corporation.

We found some officials who strongly wished that their city owned all the conduits for wires, but they mentioned no advantage of control which could not be mentioned as a condition in the grant of a right to a corporation to build a conduit.

One official was frank enough to confess that the chief reason why he wished his city owned all the conduits was that a large profit could be made annually out of the investment by the city.

We do not believe that New Bedford could be continuously held up to the pitch of earning a profit or even the bare cost of such an investment:—

First, Because it never has done it in any of the enterprises which it has already engaged in, as in supplying water.

Second, Because one great advantage of the city building the conduits is that they shall be built large enough at the very outset to provide for all the wires for all the com-

panies for many years so that the streets will not be again and frequently disturbed. But this would be done at a cost so great that even the interest money could not be obtained for several years in the rentals from the companies using them.

Therefore, We recommend that in New Bedford, any corporation which now desires voluntarily to put a fair portion of its wires underground, be granted a right to do so, provided the franchise is so framed as to secure to the city all the rights of control which are found to be desirable.

We can mention here a few of the chief rights which we think should be secured to the city.

First. All plans of the work should be approved before being placed in the street.

Second. The corporation should sign an agreement to comply with all rules and regulations.

Third. It should be made liable for all damage done by its employes, to gas, water mains, pipes or sewers, or any damage for which the city might become liable.

Fourth. It should agree to repair the surface of the street whenever disturbed by them, and to keep in repair for a long enough period to cover any possible settling or disturbance consequent upon the excavation.

Fifth. It should furnish a sufficient bond to the city for its performance under its agreement.

Sixth. No street should be dug up, either for the first laying of the conduits and manholes, or for any subsequent repairs, without obtaining a regular permit therefor.

Seventh. It should be made clear that no exclusive rights are granted to them by the city which prevents a grant of similar privileges to other companies in the same streets.

Eighth. The power to revoke the franchise should be retained by the city.

Ninth. The corporation should furnish certain space in its conduits free to the city for its own use for its own wires.

Tenth. It should also furnish a certain small measure of its service free to the city.

Eleventh. Access to the manholes should be secured to the proper city agents at all times.

Twelfth. It should certify under oath annually to the city, the number and location of wires and the miles of wire underground.

Thirteenth. It should agree to remove all its line wires from the district covered by the franchise, within a certain time, as the city should not continue to grant space both above and below ground in the same street to one company.

Fourteenth. No franchise should be granted to any company which can be inherited by its successors or assigns without the city's approval.

These are some of the main conditions which should be exacted from any and all companies who may be granted franchises.

The public is already aware that one corporation in New Bedford has expressed a desire to put some of its wires underground and has asked a franchise of the city. And it is only fair for us to state that in the proposition which that company,—the Telephone Company,—made to the authorities, before we took this tour of investigation, they voluntarily offered agreement to many of the above conditions.

We might also mention that in almost every city we visited, the authorities took occasion in some part of the discussion to say that their telephone company were the best behaved people they had to deal with. They lived up to their franchises, they were observant of all regulations, they never lost their heads and thought they owned the city streets, and the quality of the work which they did was never questioned.

In saying this in our report, we do not go out of our way just to pat a corporation on the back,—for the unanimity of this agreement,—volunteered by all sorts of city officials even if not asked, must stand for something. In this day there is undoubtedly an impression among the great mass of the people that all corporations which hold public franchises are more or less wicked, and in some cases, at least, these corporations have themselves to thank for this popular idea. Is it not well then to offset this when we can, and just mention by the way, that in the opinion of certain experts whom we met, there is a ground for hope for the telephone companies?

Leaving the subject of who shall build and own the conduits we will now take up the question of how a conduit should be built. There are two general classes of conduits. First, a solid, built in system like that now in two or three of our streets containing the Edison Electric Light wires. In this the conductor is insulated and tightly fastened in protecting iron pipes and cannot be reached for repairs except by tearing up the streets. On this account solely it should be condemned and it is to be hoped that this kind will be discontinued.

The second class is a series of long, tubular holes of some permanent character which lead along about three feet underground from manhole to manhole. These manholes in our city would be situated at the corners of the street. The wires, insulated and twisted in cables and these cables enclosed in lead pipes of the size of the wrist, are drawn each into one of the tubes. In case of repairs a cable can be drawn out and another substituted or work can be done in the manholes without disturbing the surface of the street after the tubes have once been laid. When the wires are well insulated and the cable is enclosed in lead pipe the conduits can be very simple.

There are cables laid right in the earth in Chicago, with

no conduit, which have worked well for several years. It was quite a relief to our committee after reading so many books and so much testimony as to what electricity demands in the way of a conduit, to hear the veteran engineer of the New York Subway Company. "Electrically speaking, gentlemen, all you need is a hole in the ground." It is the mechanical problem only which demands certain forms of conduits. The expensive cable must be protected from the pickaxe of the street laborer when he explores below the surface. It must be preserved for a longer life. But above all, the conduit is a mechanical device to get rid of the continual tearing up of streets by providing permanent holes under the surface through which the cables can be drawn.

There are in use now, on a large scale, four kinds of these tubes which form the conduit. First, wrought iron pipe, which is used almost wholly in New York. Second, cement lined sheet iron pipes, used by the telephone company in Boston. Third, creosoted wooden ducts, used very largely in Philadelphia. And fourth, a terra cotta vitrified tile, used in most of the recent work in Washington, Buffalo, Chicago, Detroit, Cincinnati and other cities of the West.

Looking only at the city's connection with this question, we should want the type of conduit which when once well laid would stand the longest. There seems to be no question among those who have tried them all but that the vitrified tile conduit has the longest life.

The next question which occurs in order is one which has been much discussed—that is, can all sorts of wires be run in the same conduit? Can high tension and low tension wires be successfully operated when placed in close proximity to each other? Feeling has run pretty high in the discussion of this vexed problem, blood has all but been shed in the controversy, and the ordinary

investigator is generally satisfied to leave it a little longer till the warring experts have agreed or else have destroyed each other.

In most cities the different companies have obtained separate franchises, and in building their conduits have taken advantage of this unsettled scientific bugbear to frighten the authorities into giving them all the room they wanted in separate streets or on opposite sides of the same street.

In New York city, where one company builds all the conduits and all the different companies are forced to go into them, they also yielded this point, and when they laid out their work five or six years ago they put the telephone, telegraph, signal wires, etc., in another conduit on the other side.

We found this generally to be the situation of affairs in all the cities we visited.

But a set of new and unprejudiced investigators has meantime come into the field. In some of the larger cities the number of wires belonging to the city itself has largely increased. The police signal, the police telegraph, the private city telephone service wires have become augmented by a host of high tension electric light wires, for some of these cities have their own street lighting plant. To accommodate these it was necessary for the city to build conduits of its own, and to save expense they began to mix things which good people had said never would mix. To speak exactly, they ran a cable of electric light wires through one duct when the other ducts of that conduit contained cables of low tension wires, and nothing terrible happened.

It must be positive fun for a man like Mr. Barrett, the chief electrician of Chicago, to quietly sit down and wade through page after page of the testimony delivered before the Massachusetts Legislature last year to prove that a cer-

tain thing is not practical, and then tell us how long it is since he proved it to be entirely practical. There were some difficulties at first, but they all disappeared after some months of experiment and experience.

That result in Chicago has been obtained also by some other cities.

And so we come back and report that we found high and low tension wires working peaceably in the same conduit. But there is something more to be said. All these wires in all these cables were in twisted pairs, that is, they were complete and close metallic circuits. But in the cities which we visited nearly all the telephones were on a metallic circuit.

To make this clear to all, when the telephones were first put into New Bedford all were put on single grounded iron wire circuits, that is, a wire went forth from the central office to your telephone and then into the ground, and the earth was depended on to complete the circuit and conduct back the current to the central office. But other people began, too, to use the earth as a ground circuit until the business became a little overdone and the poor bewildered earth began to mix up these currents and groaned when it had too large a dose, and we began to hear buzzing when the electric lights were lighted, and worse buzzing when the trolley street cars invaded us.

Then the long distance telephone overcame the difficulty by using a copper wire instead of iron and running out to your telephone and back on the same pole to the central office without touching the ground. The expense of this new system was much more than the old one, but still its immense advantage has caused it to be gradually adopted in the large cities for all telephones. But in New Bedford the largest part of our telephones are still on grounded circuits, and until they are changed it would be impracticable to put them in very close proximity to a high alternating current.

As all are agreed that it is only a matter of a few years when all our wires will be run in pairs, it would not be advisable to form our plans for anything else, except may be for immediate construction.

The sharp contension of different companies for separate conduits, when carefully analyzed, seems to be for exclusiveness of management rather more than for wide separation of wires. This claim seems to be a valid one, based on good and sufficient reasons, and all cities which we visited had recognized it.

However close the conduits of the different companies approached each other they each had their separate man-holes and could only gain access to their own cables.

Your committee are of the opinion that in our very narrow streets it will be found best to run both conduits on the same side of the street and within a short distance of each other, and with separate manholes at the corners.

For a long time we inclined to the opinion that the best place for them was under the sidewalk, but we now unite in recommending that they be placed about under the gutter.

Regarding both these recommendations, we feel like saying that before many wires shall have been placed under ground in New Bedford new experiments and the results of experience may cause us to modify them materially.

Having finished now the consideration of the underground conduit for wires, we come now to a discussion of some of the general subjects which are suggested by the consideration of any action toward putting all wires underground.

ELECTROLYSIS.

The effect of electrolysis upon water and gas mains is now occupying a great deal of attention in those cities

which have electric street railways. It seems now to be admitted by all that this action is caused by the return current of the trolley system. When the single overhead trolley was first introduced the rails were depended on to carry the current back from the wheels of the car to the power station. But it was soon found that through inferior bonding of the rails a certain portion of the current wandered back through the earth independently. It was apt to seize hold of an iron water main and follow it along toward the power house. Where it left the main there would occur the corrosion, which soon caused serious damage. Elaborate experiments in different cities have shown conclusively that this danger is much greater in the vicinity of the power house and that the strength of the electrical current in the main varies with the amount of electricity being used by the car. To reduce this tendency of the returning current to leave the rails, later street railway construction has attempted to bond the rails more completely and has also run a return wire under ground between the rails. But still recent tests in various cities have shown that there is enough current escaping to cause serious damage.

Some experts have recently testified that the best remedy is to provide an easy passage from the water main to the negative ground in the power house by laying a large copper wire and fastening it to a heavy copper ring around the main.

But certain investigators have lately pointed out that this connection very much increased the amount of current which chooses this convenient way to travel home.

This would do little damage, provided the pipe formed a good uniform conductor. But in point of fact few of the lead-caulked joints can be found which offer no resistance to the passage of the current. It is apt to pass around the joint, and every time it leaves the pipe there will be found corrosion constantly going on.

But still another danger is coming into prominence in this investigation. The current in passing around the joint is more likely to pass inside through the water. The usual action which occurs when the current leaves the metal will take place on the inside of the pipe, that is, the pipe will be corroded. Should this water main happen to be a sluggish, dead end, the water supply would be apt to become seriously contaminated by the salts of iron, or salts of lead, which would be formed and remain in the water.

Philadelphia has tried to prevent this trouble by making the street railway companies conform to very strict specifications in regard to the method of bonding the rails and of laying extra large return cables which increase in size as they approach the power house.

Cincinnati has in large part prevented the difficulty by forcing the street railway company to put up two trolley wires overhead. The current passes out from the power house over one wire, down one trolley pole into the car motor, then back through another pole to the other wire and back to the power house. In this method the rail is not depended on to carry back any current, and consequently little electricity escapes into the earth. But this freedom from electrolysis is accomplished by a complex cobweb of wires over the track which does not specially recommend it.

In Washington is found the same problem being worked out, but in a different way. The trolley was double, but was placed underground in a conduit between the rails. Congress has passed a law forbidding the erection of any overhead trolley systems. So here the underground system is being stimulated to work out its own salvation. One road which has a suburban section of overhead trolley has constructed the balance in the city with a double trolley underground. Instead of wood, heavy iron girder sleepers are put down on which rests the rail. Between

the tracks is an iron conduit with a narrow slit opening at the top similar to that of a cable road. To the roof of this conduit the trolley wires are hung on insulators, and as the car passes along an attachment similar to a cable grip sticks down from it into the conduit and engages the trolley wires by two small grooved wheels.

We got down into a manhole while a car passed over us and saw the change made in less than a minute, from overhead to underground trolley, and then the car passed on at a rapid rate over a nice looking road with an extra solid road bed with no trolley wire or guard wires, or feed wires, or stay wires, or ungainly green posts to blast the landscape, and no chance for a neglected return current of electricity to run riot and play pranks with everything below ground.

Everyone whom we saw called it a success. It certainly appeared a success to our unscientific judgment, and it will surely pay anybody to watch it who believes that our selfish overhead trolley is very far from being a satisfactory solution of street locomotion. At any rate it bids fair to have a satisfactory test of its merits, as one of the largest horse railroads in Washington has just voted to put in an underground trolley system for all its branches.

We were naturally interested in this system, not only because it would cure the evil of electrolysis, but also because we believe that in the near future when our people shall demand that all our wires go underground it will not be possible for the naked and unpopular trolley to escape the general condemnation.

Concerning the subject of electrolysis in our own city, we do not think it wisdom to wait for positive proof of its danger until some large water main gives out through its weakening influence. We believe the Water Board should make some examinations of its water mains in the neighborhood of the street railway power station, and if the electricity is found in abnormal quantity, or if positive

evidence of electrolytic action is found, we recommend that experts who have made this subject a special study be consulted at once as to the best remedies.

We would also recommend to the Board of Public Works that before they grant more rights or locations of poles for any extension of the trolley system that the street railway company be required to give a bond to protect the city from any possible damage inflicted by their electrical current. And also that in the construction of any new work they will agree to bond the rails and lay return feed wires according to certain definite specifications to be furnished by the Board similar to those now in use in Philadelphia.

TAX ON WIRES AND POLES.

We have become fully convinced that the indiscriminate granting of rights to encumber the public streets with poles and wires without charging for the valuable space occupied is wrong and indefeasible. If the use of the streets for poles had not been made so free, the expense of going underground would not now seem so forbidding. We recommend that the movement of putting wires underground be encouraged:—

First. By making no direct charge for the use of the street for underground conduits.

Second. By taxing all extensions in the air from this time forth.

Third. By making an annual charge for all poles and wires in the air, both new and old.

It is not meant by this to seriously handicap the different companies by placing upon them an oppressive burden. It is not meant to charge them with what the right is worth to place such obstructions in the streets and to endanger property. But to exact some acknowledgement of the public rights granted them and which some cities

force them to pay roundly for. When this modern demand for poles and wires in the streets first began no one had a suspicion of the extent which it would so rapidly assume.

The proper care and supervision of such an increasing snarl by the city authorities is fast becoming a regular expense out of the city treasury. This, at least, should certainly be exacted from those who thrust this expense upon us.

In those cities which handle this subject the best they arranged it as follows:—

First. A regular fee was charged for every permit to locate a new pole.

Second. An annual rental for each and every pole maintained was charged to the owner.

Third. An annual charge was made for each mile of wire maintained.

In this connection we recommend that an order be passed by the proper authorities obliging every company to make an annual sworn return of the number and location of their poles and wires and of the miles of wire belonging to them.

As the city grows it is becoming more and more necessary for the city to have a reliable record of the owner of every wire. This brings us to another important subject.

DEAD WIRES.

The value of the iron wire used so largely by the telephone and telegraph people is so small that it does not pay to take down any line which has been discontinued. Hence we have overhead in New Bedford a large and constantly growing number of dead wires. These, on account of their neglected and fatherless condition, are an unnecessary nuisance at all times, and if crossed by any live electric wire may become active agents of danger. Every city

we visited is waging a constant war on all dead wires. We recommend that all companies having franchises to run wires or maintain poles be warned to remove all dead wires within a certain time, and that at the expiration of that time the city remove those wires, charging the expense of such removal to the owner or company putting them up whenever that can be found out.

This examination of the wires by an agent of the city should be constant, and the expense to the city will be considerable. This is one of the expenses which should be provided for by the tax which we have recommended.

SUPERINTENDENT OF WIRES.

It is rather remarkable, and certainly unfortunate in practice, that the office of Superintendent of Wires in New Bedford is under the City Council, while the whole matter of poles and wires in the street is in the hands of the Board of Public Works. It is self-evident that this official should in some way be brought more in touch with the latter department.

TESTING ELECTRIC LIGHTS.

In our investigation of the action of different cities in putting their own wires underground we naturally saw several notable instances of municipal electric street lighting, but we feel that it would be going too much out of our way to give here what we gathered on that subject. But we would venture to say that it was one of the duties of the officials who supervised for the city the running of wires to test the illuminating power of the arc lamps furnished by the corporations for lighting the highways. This has done much to improve the quality of the light furnished.

There were several practical hints gathered in different places which need not be mentioned in this report, but the

possession of these by the Superintendent of Public Works cannot fail to increase the wisdom and efficiency of that department.

CONCLUSION.

To sum up, then, the points which we have striven to make clear, we do not advocate the municipal ownership of the underground conduits in our city.

Companies may be allowed to build their own conduits, but the formal franchise should secure to the city every right of control needed, and the franchise should never be perpetual.

We advocate the drawing in conduit of ducts built in the most permanent manner of the most permanent material.

The different companies should be allowed to build separate manholes, but their conduits can be built side by side on the same side of the street.

The conduits should be built under the gutter.

Electrolysis should be investigated at once, and if the mischief is serious, the offending corporation should be made clearly responsible for the damage and should be compelled to remedy the cause of the evil.

An annual sum should be collected in license fees for the wires and poles.

All companies should make an annual return of the number and location of wires and poles.

Steps should be taken at once to remove all dead wires, and through proper inspection to prevent them from ever again accumulating.

The Superintendent of Wires and Board of Public Works should be brought nearer together in their work.

In conclusion, we wish to express the opinion that the work of putting the wires underground has been proved to be entirely practical, electrically and mechanically. It

has been on trial for several years in some of the larger cities and has passed entirely out of the experimental stage.

New Bedford runs no risk in beginning such a work now. We believe that some action should soon be taken by the proper authorities toward having all the wires put underground in the congested section of the city. This requirement need not be made oppressive to the companies, for by beginning early they can be allowed sufficient time to accomplish the result gradually and to provide for the expense.

In the consideration of the details of the franchises which may be granted some arrangement can be made by which the wires of some companies which have only a few can be put into the conduit of another company at a rental based upon an agreed percentage of cost.

We have looked upon this whole question as it applies to New Bedford especially, and our conclusions are influenced by the local conditions. It would be as difficult for the city to look ahead and correctly estimate the requirements of the city ten years from now as it will be for the companies. With the rapid growth and new uses of electricity which impress us daily we believe it impossible to correctly forecast the future, and what appears wise to-day under present conditions may prove inadequate and impractical in much less than ten years.

We have, therefore, decided to recommend the granting of a limited franchise for a very limited district as the best present solution of the question reserving the right to profit by the experience of the next few years.

Respectfully submitted to the Board of Public Works and committee of the Board of Trade of New Bedford.

STEPHEN A. BROWNELL.

EDMUND WOOD.

ALBERT B. DRAKE.

IN BOARD OF PUBLIC WORKS,

October 5, 1894.

Placed on file.

WILLIAM S. COOK,

Assistant City Clerk.

IN BOARD OF ALDERMEN,

April 11, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

4 mo., 11, 1895.

Concurred.

WM. A. MACKIE, Clerk.

1894—CITY DOCUMENT No. 11.

SECOND ANNUAL REPORT

OF THE

ENGINEERING DEPARTMENT

OF THE

CITY OF NEW BEDFORD

TO THE

CITY COUNCIL,

BY THE

CITY LAND SURVEYOR,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., PRINTERS TO THE CITY,
1895,

REPORT.

CITY OF NEW BEDFORD, ENGINEERING DEPARTMENT.

January 1, 1895.

To the City Council of the City of New Bedford.

GENTLEMEN:—In compliance with Section 5 of the ordinance defining the duties of the City Land Surveyor, the following report of the expenses and operations of the Engineering Department for the year 1894 is respectfully submitted.

The expenditures and receipts for the year have been as follows:—

EXPENDITURES.

Salaries and pay-rolls,	\$4,812.86	
Rent,	600.00	
Janitor,	110.60	
Lights,	40.58	
Telephone,	52.50	
Union Street Railway, tickets,	175.00	
Drawing supplies,	57.66	
Stationery, printing, books,	54.86	
Repairs to tapes, fixtures and utensils,	35.87	
Sundry supplies,	11.69	
New tapes, fixtures and utensils,	44.72	
Sundry labor, not on pay-roll,	13.80	
Index cards,	24.43	
Express, postage, travelling expenses,	16.15	
Printing report for 1893,	29.26	
Horse and carriage,	1.00	\$6,081.28
Tide gauge (special appropriation),		171.90
Balance to credit new instruments,		528.10
		<hr/>
		\$6,781.28

RECEIPTS.

January 1, 1894, appropriation,	\$3,800.00	
April 13, 1894, “	1,400.00	
June 1, 1894, “	500.00	
December 14, 1894, “	700.00	
January 7, 1895, transfer,	381.28	\$6,781.28

CONTRA.

Balance carried forward for the purchase of special instruments,	\$528.10
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CEMETERY COMMISSION.

Appropriation by Council to be expended under the direction of the Cemetery Commission.

Included in above statement of receipts,	\$500.00	
Expended under this direction,		\$164.70
Balance to general expenditures,		335.30
		<hr/>
		\$500.00

The following table shows the distribution of salaries and time for the past year. I have separated my own time under the head of “administration” from the time of the assistants, bringing the cost of the whole together in the last column. I think this will afford a better arrangement for future comparison. The cost of administration is more in the nature of a fixed charge, and the distribution of the time in many cases will be out of proportion to the time of the assistants: as, for instance, in the case of the survey of the city under the head of “assessors’ plats,” where my services *exceeded* the time of the assistants.

I have also had the time of the assistants for this year separated into office and field work. This arrangement will be followed in the future.

DISTRIBUTION OF SALARIES AND TIME OF CITY LAND SURVEYOR AND ASSISTANTS FOR THE YEAR 1894.

	Administration		Assistants.			Total Cost.
	Hours Time.	Cost.	Hours Time.		Cost.	
			Office.	Field.		
Office work, entering orders, correspondence, cleaning tapes and instruments, consultations,	360	\$276 30	496	...	496	\$89 65
Reports of 1893 and 1894, compiling information for same,	120	92.10	221	...	221	44.15
Department of Public Works, surveys, plans, etc., on special work,	200	153.50	405	142	547	109.25
Cemeteries, surveys, plans, special re-surveys, etc.,	150	115.00	447	901	1348	263.20
Street department, grades for grading, filling, curbing, gutters, etc.,	50	38.40	...	298	298	59.50
Private parties, grades for steps, buildings, walls, curbing, etc.,	20	15.30	...	245	245	48.95
Street grades, levels taken for establishing same, office records, profiles,	50	38.40	357	172	529	105.65
Water Works department, grades, levels, and profiles,	50	38.40	27	125	152	30.35
Drains, grades and levels for laying same,	10	7.60	...	105	105	20.95
Public buildings, levels and lines for same,	50	38.40	...	78	78	15.55
Sewer construction, grades, levels, plans, records, measurements, etc.,	150	115.00	709	781	1490	297.55
Correcting office plans, copying plans, etc.,	50	38.40	149	...	149	29.75
Drains, location, measures, index of same, etc.,	20	15.30	219	322	541	108.05
New work, measurement, calculation, macadam, concrete, gutters, curbing, etc.,	20	15.30	436	364	800	159.75
Street layouts, surveys, plans, returns, records, tracings, etc.,	250	192.00	658	984	1642	327.90
Sewer assessments, plans, ownerships, records, etc., 1893-1894,	40	30.60	241	...	241	48.10
Catch-basin plans,	20	15.30	257	...	257	51.30
Indexing, plans, note books, and other records,	20	15.30	322	...	322	64.30
Street numbers, re-numbering, new numbers, records, etc.,	50	38.40	124	459	583	116.45
City Solicitor, Inspector Buildings, Committee on Public Property, City Clerk, surveys, plans, etc.,	300	230.20	463	102	565	112.85
Grade crossings, plans,	20	15.30	48	...	48	9.55
Park Commissioners, surveys, plans, attendance, etc.,	300	230.20	340	840	1180	235.65
Assessors' plats, corrections, record of transfers, and inspection,	420	322.40	390	...	390	77.90
Bench marks, levels for correcting and connecting,	10	7.70	...	64	64	12.75
Street improvements, inspection and recording same,	20	15.30	122	223	345	68.90
Vacations and legal holidays,	112	85.96	...	...	468	93.45
Totals,	2862	\$2196 06	6431	6205	13,104	\$4812.86

Total number of hours service rendered by the department, 15,966, at a cost of .301 cents per hour.

An increase over 1893 of 4,158 hours, and a saving in cost of .050 cts per hour.

In discussing the work in detail I will follow the order and general divisions used in the preceding table.

OFFICE WORK.

Under this title is included all of the work of the entire force which cannot be charged under some of the other heads. Consultations, and furnishing information to citizens, represents a considerable part of the time.

REPORTS.

This covers the special work incidental to the getting up of the annual reports not only of this department, but for the Board and Superintendent of Public Works.

DEPARTMENT OF PUBLIC WORKS.

In connection with this special work we have made plans and turned over to the Board, or the Superintendent, copies of the following:—

- Plan of Middle Point road, West French avenue to George street, showing effect of various widenings.
- Profile with soundings for Bonney street sewer.
- Plan of west side Purchase street, Union to William, showing telegraph and telephone poles, with reference to store entrances.
- Plan of sewerage system, Wamsutta to Pope, east of Acushnet avenue.
- Plan of drainage area of Merrimac street sewer.
- Plan of drainage area of proposed Coffin avenue sewer.
- Plan and profile of the outlet to the Merrimac street sewer, with soundings into the river.
- The same for Kilburn street sewer.
- The same for Washburn street sewer.
- Map of the sewers of the city, three copies.
- Levels were taken on the draw-pier of the Coggeshall street bridge to ascertain if there had been any settlement. Soundings were also made to determine the depth to firm bottom, and the extent of rip-rap around the pier. Two plans were made to show the result of this investigation, copies of which were furnished the Superintendent.

Profile of School street sewer in matter of the drainage of Trinitarian church.

Plan of drainage area of Washburn street sewer.

Plan of drainage area of Kilburn street sewer.

Plan of Hyatt lights and curbing, front of Millard building, Pleasant street.

Profile of William street, Pleasant to Purchase, showing grade for Union Street Railway track.

Plan of sewerage system of section bounded by Union, Second, School and Acushnet river.

Plan of sewerage system of Mill, North and Kempton streets.

Plan of drainage area of Purchase street sewer north of Sawyer, with blue prints.

Profile of Rounds street, Kempton to Court.

Blue prints of a table showing assessors' valuation on Pleasant street, Union to William street.

Report of a canvass made to ascertain the opinions of storekeepers as to the maintenance of projecting signs.

Profile of drains for the new waste mill.

In addition to the above, we have begun, pursuant to a request from the Board of Public Works, the preparation of a complete list of all the streets of the city, showing whether they are accepted or contemplated, and whether the grade is established or proposed, with the dates on which action was taken. This will involve a thorough search of the records from the earliest action on streets to the present time; but it is a matter of such importance that accuracy and completeness should be the main consideration. Considerable work has been performed along these lines in the past, and we have an index of accepted streets which was supposed to be quite complete and accurate; but we find sufficient errors and omissions to justify a thorough research of the city and town documents.

An assistant from this department has also been detailed to assist Mr. George F. Bartlett of the Board of Public Works in a canvass of the street signs of the city.

CEMETERIES.

The following plans were furnished to the Cemetery Commission and Superintendent; originals in this office.

Plan and tracing of Section RR, Oak Grove.

"	"	"	NN,	"
"	"	"	A3, Rural.	
"	"	"	OO, Oak Grove.	
"	"	"	PP,	"
"	"	"	CC,	"
"	"	"	CCC,	"
"	"	"	SS,	"
"	"	"	TT,	"
"	"	"		Rural Cemetery.

Plan and copy of Pine Grove Cemetery.

"	"		Section D, Pine Grove.
"	"	"	E,

Index plan to north part of Oak Grove Cemetery.

In Rural Cemetery—One section was sub-divided, one extended, and one new section laid out. The boundary lines of the cemetery were run and measured, for use later in making a map of the cemetery.

In Oak Grove Cemetery—One section commenced in 1893 was completed, one new section laid out complete, one section started and a plan of treatment determined upon for the entire northwest corner of the cemetery. A re-survey of the north part was also commenced.

Pine Grove Cemetery—A re-survey was made of this cemetery and the location of all lots sold determined. A new plan of subdivision was then decided upon for the balance of the cemetery, and two sections were laid out and completed in accordance with this plan.

SPECIAL WORK.

Early in the year I met with the Cemetery Commission to consult with them as to the best method of thoroughly platting the cemeteries. The plan finally adopted, the basis of which had been worked out by the chairman, J. Arthur Taylor, was in brief as follows: First, the survey of the undivided lots in the cemeteries, with the location of all graves by measure from definite points, so that they

may be relocated in the future, when all surface indications have disappeared; second, a complete survey of the drives and sections of each cemetery; third, the platting of this information on plats of a suitable size to show present graves and future additions.

The work of the first part as above outlined was carried on in the field until August 25, when, owing to the change in the administration of the cemeteries, I stopped it,—temporarily as I supposed at the time, but it was not renewed. This part of the work had covered the old part of Oak Grove cemetery up to and including Section I, and in the Rural cemetery all of the northeast and southeast sections of the old part.

The importance of this work can hardly be overestimated, and I hope we will soon be placed in a position to renew it.

As already stated, I have commenced the resurveys of the Rural cemetery and north part of the Oak Grove cemetery. It was my intention to make a plan of each of these cemeteries, showing on one sheet all existing sections and subdivisions, with proposed extensions. This map is not intended to replace the plats mentioned under Section 3, but to furnish a convenient visual record of the entire cemetery as far as sections and subdivisions are concerned.

STREET DEPARTMENT.

Grades and lines were furnished as follows:—

Twenty-three grades were given for grading streets.

Forty-two grades were given for curbing and gutters.

Thirty grades were given for catch-basins and eye-holes.

Five lines were given for catch-basins and eye-holes.

Nine lines were given for grading, curbing, etc.

Two cargoes of flagging were measured.

Davis street from Front to Acushnet avenue cross-sectioned to estimate fill.

I desire now to call attention to a matter which deserves consideration :—

Frequently short pieces of curbing are ordered laid without any reference to existing conditions in the street. On streets that have an established grade it does no particular harm, but on streets without such a grade, it becomes oftentimes a most serious question to this department to give a grade that will be correct when the street is completed to it, and yet will not leave the balance of sidewalk and street in such shape as to be not only unsightly but dangerous. Many times this condition is still further complicated by the fact that this grade will so conflict with existing private property rights that if used would certainly involve the city in expensive suits for damages. In such cases we make the best compromise possible,—we have not the authority to do any different.

I would suggest that before curbing is laid on such streets, a plan and profile be prepared showing existing conditions, the proper grade and its effect upon the property of abutters.

Some progress was made this year, I am happy to say, in the raising of the grade of the territory adjoining the low part of Water street. When Leonard and Pine streets were accepted the grades of each were adjusted to a minimum elevation of four feet above mean high water at Water street. Howland street from Water street west was also raised so that the minimum elevation at Water street will be four feet above mean high water.

STREET GRADES.

Levels were run upon a large number of streets at various requests. The final action and other details are shown in the tables annexed. Profiles were made in each case, and are on file in this department.

It will be observed that the list of unestablished street grades is constantly growing. In my report for 1893 I explained at some length the two forms of grade in use, and the plan of procedure in each. It should be clearly understood that the established grade is the only legal grade; but on account of the time required under this method, we are constantly forced to the other expedient. As the authority in this matter is not in my hands, I have no other suggestion to make at this time than to call attention to the importance of deciding upon some plan of procedure which will reduce to a minimum the liability of lawsuits against the city. I have already commented upon one fruitful source of trouble from using unestablished grades, under the head of "Street department."

There is a purely engineering point I desire to offer here in connection with a work just started, in anticipation of the time when the question of street pavements will be considered in its relation to the city as a whole. I have had the necessary levels taken to enable the preparation of a map of the city showing the various rates of grade of all of the streets. In connection with this map, I propose to show the main lines of travel, dividing this also into *light* and *heavy* travel. It will generally be found that travel of all kinds, when left to itself, chooses a course which provides the quickest route at the least effort. The condition of the streets, however, may be such that some one street, on account of its better surface, may receive an undue share of travel,—*i. e.*, teams will avoid the direct route and travel over a greater distance to use this one good street. In such cases it would be economy to fit up another street to relieve a portion of this "congested" condition.

At first sight it would seem to be only necessary to recognize this natural law of travel and provide one large avenue for it; but unfortunately in most cases the posi-

tion, direction and width of streets are fixed long before the congestion of travel becomes a serious question. We find also upon considering the material for the construction of a street, that the nature of the prospective travel in a large measure controls the choice of surface. If it is to accommodate heavy teaming, then no matter how much light travel there will be, the heavy teaming determines the kind of pavement, and to-day the best known pavement for such use is the granite block on a concrete base, with joints filled with asphalt. There are modifications of the method of construction, to fit the capacity of the municipal pocket-book, but there is no way which makes it an agreeable surface for light vehicles, and the effect of wear is to make it still worse. There is also the unpleasant element of noise,—a more distressing feature than it appears at first mention. For light travel we have a wider range of choice. There is the sheet asphalt, block asphalt, brick, wood, and macadam. I will not go into a discussion of the relative merits of these various paving materials; the principal question after all is the character of the traffic. There is a natural relation between the two which cannot be ignored without unduly expensive streets as a result. Now all this means a separation of travel with suitable provisions for each. Heavy teaming should have those streets which provide the shortest distances, with the easiest grades, between the main objective points. Light teaming and business traffic could come next. The balance could then be fitted for light travel only. As a matter of fact, there would be, in spite of every precaution, more or less use of every street by all kinds of traffic, and as the city grows the accommodations for heavy travel will have to be extended accordingly.

Probably the pavement that to-day comes the nearest to meeting all of the conditions for city traffic, including a moderate amount of heavy teaming, is sheet asphalt. For

suburban streets and those streets where the travel is mostly for pleasure, macadam has many qualifications aside from its cheapness which will continue to make it the most desirable for these streets. The quality of rock used is of course largely the measure of the durability of a macadam road. In granite we have at its best only a fair material; but I have thought that if this city could obtain even at considerable cost enough trap rock to construct the top or wearing surface, the added length of life of the whole street would more than compensate for this additional cost.

It is extremely unfortunate that there is no known trap formation within convenient distance of New Bedford. The State Highway Commission, however, has commenced an exhaustive search, to extend over the whole of southeastern Massachusetts, for the purpose of locating the different rocks suitable for macadam roads.

I would refer those who are interested in good roads to the method of construction and repair in use in Boston on the roads of the public parks. Descriptions of this method are on file in this department. To those who are especially interested in this matter I would commend an article in the *Engineering Record* of October 2, 1894, upon "The methods of construction and repair now in use on the roads of the public parks in Boston."

PRIVATE PARTIES.

Ninety-four grades were given to various parties for buildings, steps, curbing, etc.

The decrease of buildings erected the past year as compared with 1893 is shown rather strikingly in this figure.

There is a matter of great interest to the city which I think properly comes under the above heading, viz. : more control by the city over grades for buildings and cellars.

I will only attempt a brief resume of the subject now, hoping it may lead to a thorough investigation later.

As should be well known, a considerable area of the city abutting on the water front, from Clark's Cove to the Head of the River, is only a few feet above mean high water. Water street, at Grinnell and Howland, reaches at one point an elevation of only one and one-half feet above mean high water. Again, at Cannon street it is only two feet above mean high water. Now, the expression "mean high water" may be misleading to some, and I will state that it is the datum or plane of reference for all elevations in this office; but there are reasons for believing that extreme high tides have risen nearly if not quite four feet above this point. To be safe, therefore, no cellar bottom should be lower than four feet above mean high water. There are, however, numerous cases in the city where cellar bottoms are less than one foot above mean high water. Such a cellar is not only certain to be flooded at any extreme high tide, especially if in connection with a storm, but is liable at such times to a back-flow of sewage. I have in mind, as an instance, a recently constructed house at the north end near the river, where the water closet in the basement is only about one foot above mean high water. As the situation now stands, there is no regulation in regard to the cellar grade. This department defines the street grade to anyone about to build, who requests it; but it has no knowledge of where the party intends to put the cellar bottom, and in fact does not learn it until called upon to ascertain the fact in some future complaint on account of a flooded cellar.

The control by the city over the grades of cellar bottoms should not be limited to houses on the water front, it is equally important to exercise this control on streets far above the reach of the tides, for the double purpose of providing as much fall as possible for the drain from the

house to the sewer, and to prevent thoughtless construction in localities already provided with sewers which would have to be lowered in order to provide drainage for a deep cellar, involving an unusual and perhaps an unnecessary expense. This is not to be considered as an argument against deep sewers, as I believe in them, at the proper time and place.

The suggestions I would make to avoid in the future the difficulties stated, would be the passage of the necessary ordinances to compel all parties about to build any structure to first apply to this department for the line and grade of the street, and the lowest permissible grade for the bottom of the cellar. Should the party object to the grades thus fixed, he could bring the matter before the proper authorities and obtain permission to build at such grades as they might think proper. The point gained would be the knowledge by all concerned of the actual situation and the results to be expected and provided for.

Boston has an act regulating the construction of cellars. In this act the grade of the cellar bottom is fixed at 12 feet above mean low water. The average rise and fall of the tide is 10 feet. Cambridge has a similar law fixing the grade at 13 feet above mean low water.

Newton has a law defining the grade of the cellar bottom with reference to the grade of the sewer into which the drain is to enter, so that a fall of at least one foot in fifty will be obtained.

Newton and Providence also have an ordinance compelling every person about to build any structure on any street to first obtain the line and grade of that street from the City Engineer.

BENCH MARKS.

With the tables are shown the streets on which levels were run to determine the elevation of various existing bench marks with reference to the city datum (mean high water). These bench marks are in most all cases the boundstones marking the street lines. We hope in time to have all the elevations of our bench marks thus accurately determined and checked.

I might properly call your attention here to the necessity for setting a large number of stone bounds to mark intersecting street lines. It is not a very expensive matter if attended to in time.

STREET IMPROVEMENTS.

At the request of the Superintendent of Public Works we began late in the year a complete inspection of all existing street improvements, so as to be able to show the total length and area of macadam, cobble and block paving, the total length of curbing, gutters, flagging, concrete, cross-walks, etc. To make it still more complete, as it would take but little more actual time while going over the streets, I extended the inspection to cover every condition of the street between lines, and to also take in the number of trees. The field work is nearly completed, but the office work involved was rather more than I anticipated. For this reason I am afraid it will not be finished in time for the report.

WATER WORKS DEPARTMENT.

Our work for this department the past year has been mostly the regular routine assistance as called upon from time to time. In view of the extensive work about to be commenced for the extension of the water supply, it is quite probable that we shall be called upon this year to a much greater extent than in the past.

During the year we gave 34 grades for laying pipe and setting hydrants.

Levels were run and profiles made of 10 streets.

A duplicate of one of the assessors' plats was made for the purpose of determining cost and application to the wants of the department for the purpose of showing pipe lines and services.

DRAINS.

The work of the department in relation to drains, has been carried on as in the past, and outlined in my report of 1893.

At the beginning of the year we made arrangements with the Superintendent of Public Works to have the foreman of the drain gang keep a record of pieces of pipe laid, the size of the pipe, and the depth laid at the curb line. This adds considerable to our information concerning drains.

Grades were given for laying 27 drains.

Location of branches were given for 88 drains.

The number and length of drains laid will appear in the tables of the Board of Public Works.

PUBLIC BUILDINGS.

For the Madison Street school—Lines and grades were given for the retaining wall, curbing and grading of grounds.

For the Davis street engine house—Lines of the lot were defined, and grades fixed for the grounds.

Boiler-house at the poorhouse was staked out, and grade fixed.

Grades were given for laying concrete walks at the Acushnet Avenue school.

SEWER CONSTRUCTION.

The tabulated information pertaining to the sewers constructed the past year will appear in a table prepared jointly by this department and the Superintendent of Pub-

lie Works. In addition to that information, the department furnished grades for construction 97 times, and made 76 trips for locating branches and measuring ledge.

Levels were taken in cellars of four houses upon complaint of flooding.

Plans have been made of all sewers built during the year, showing all the details of construction, nature of excavation, etc.

In the case of the Bonney street sewer, cross sections were taken every ten feet and a plan has been made showing a large number of these sections.

Everything pertaining to the record of the sewers is completed up to date, with the exception of the sewer book; the plans of sewers built this year have yet to be transcribed in it.

The preparation of a plan has also been commenced, to show all of the sewers in the city that are directly influenced by the tides. By referring to this plan and knowing the stage of the tide, it can be seen which sewers are affected and to what extent. This is one of the uses of the tide-gauge, to be explained further on.

Details of construction of the Bonney street sewer will be found with the report of the Superintendent of Public Works; to save repetition it is omitted here.

CORRECTING OFFICE PLANS.

Under this head is included the care of the plans in the office and in the Board rooms, the copying of plans loaned by private parties, etc.

NEW WORK.

This includes the measurement of all work on the streets outside of sewers and drains,—macadam, gutters, curb-

ing, paving, flagging, concrete, etc. This is turned in to the Superintendent of Public Works, and appears in the tables of his report.

STREET LAYOUTS.

Tables annexed give the work done under this head during the past year. A plan and profile have been made of each street surveyed, and a tracing of the same returned to the Board of Public Works.

A few words upon the present method of the laying out of streets : —

As a matter of fact the private citizen lays out the streets, and the city later on goes through the formality of accepting them. Then, again, owing to the system in vogue here of making the square rod the unit of area and of value, streets are projected so as to produce the largest number of lots of the smallest area that will provide room for a house. As a result, the street mileage is very much out of proportion to the lot areas ; in consequence of this cramped area of the lots, the houses have to be built close up to the street line. This tends to intensify the already narrow appearance of the streets.

There should be established a minimum allowable distance between streets for the outlying sections of the city before they are built upon to such an extent as to practically preclude it.

Several of the suburban streets have already been widened in anticipation of future needs ; others have been surveyed for the same purpose, and are under consideration. But under the method pursued in these cases the damages are oftentimes excessive. The Legislature of 1893 passed an "Act to authorize the establishment of a building line on public ways" which accomplishes much

the same result as a widening, where the future is the chief concern, and at much less expense. The City Council accepted this Act July 26, 1894.

I would recommend that this building line be established on a large number of our residence streets, especially those on the outskirts.

SEWER ASSESSMENTS.

Plans of the following sewers were made for the purpose of assessment, of which tracings were delivered to the Board of Public Works :—

SEWERS ASSESSED.

NAME.	FROM	TO	Area assessed in rods.
Beetle,	Belleville avenue,	Front,	343.01
Belleville avenue,	Coggeshall,	North,	179.14
Belleville avenue,	Coggeshall,	South 100 ft.	72.29
Clark,	Myrtle,	Mt. Pleasant,	262.77
First,	South,	Grinnell,	92.73
Front, Commercial, and Water,	Union,	Spring,	207.35
Maple,	Ash,	Atlantic,	631.29
Mitchell,	Coggeshall,	Sawyer,	452.94
Total,	14 acres, 6.52 rods.		2246.52

CATCH BASIN PLANS.

These show the location of the catch basin with reference to intersecting street lines and sewer.

INDEXING.

This valuable feature of the work of the department is somewhat behind, as is usual at this time of the year. It will be brought up to date as quickly as possible, now that outside work is very much decreased.

STREET NUMBERS.

With the tables annexed is a list of all the streets newly numbered and re-numbered at the request of the assessors early in the summer. A partial list is also given of those streets where numbers were supplied.

An attempt was made to compel owners to replace the temporary paper number affixed to the building by this department with some permanent number, by leaving with the owner a printed copy of the city ordinance on this matter. It was partially successful, but many of the buildings still have only the paper number.

The system of apportioning numbers upon an assumed and varying width of frontage is very far from being the best; but it is impossible to make any decided improvement without re-numbering the entire city.

CITY SOLICITOR, INSPECTOR OF BUILDINGS, ETC.

City Solicitor:—

This official was furnished with two plans of property abutting and adjoining on McGurk and Social streets, for use in defending the city against the suit of Mrs. M. R. Green.

Two plans of all grade crossings on the line of the railroad south of Acushnet station, to accompany petition to the Superior Court in the matter of abolishing the grade crossings.

Plans and profiles of Thomas street and adjoining property, for use in the case of D. H. De Moranville against the city, also with personal attendance at court in the same case.

Inspector of Buildings:—

In addition to the assistance already specified under the head of public buildings, he was furnished with plan of retaining wall at Madison Street school; plan of Davis street engine house, showing surface grades and drainage; tracing and several blue prints each of three plans of a fire-escape.

Committee of the Council on City Property:—

Was furnished with plans and profiles of two school lots at the north end.

Measurement of Central police station and title of land.

On Armories:—

With survey of land for a proposed site for a new rifle range, with plan of same.

School Committee:—

Survey made of school lot on Clark's Point, line of street shown, title of land looked up and plan made.

City Clerk:—

Maps made of wards 1 and 6, showing new precincts, and made about 40 black process prints of each.

Inspector of Wires:—

With line of Peckham street for poles for wire from Pumping station to distributing reservoir.

Board of Health:—

Map showing all the sewers in the city, and sizes of same.

GRADE CROSSINGS.

Only a small amount of work was done on this very important question,—not from any lack of interest in the problem, as I have given the matter considerable thought, but I have tried to avoid wedding myself to any particular scheme for accomplishing the abolishment of the grade crossings, believing that in this way, if called upon by the City Council to prepare plans of whatever schemes they desire, I shall be better able to apply myself to it than if I had previously committed myself to some different scheme of relief. Personally I believe that the first step to be taken now should be to obtain a definite and positive statement of the popular wish as to how the grade crossings shall be abolished. The engineering problem is then defined within certain lines, and its solution is to show the very best way of accomplishing this particular result.

It is a question to be decided not simply for one crossing, but for all present crossings and all possible future crossings.

It is a mistake also to assume that this will narrow the field of investigation to only one general scheme of relief. The railroad will without question make a most exhaustive study of the situation from their point of view. This may coincide with the wishes of the city; if so, it would be a happy solution of a very vexed question. But in all probability it will be a repetition of the experience of other cities, and upon the commissioners will devolve the duty of deciding which plan or combination of plans will be for the best interests of all.

PLATTING SYSTEM.

In my report for 1893 I gave a short description of the general manner in which this work was carried on by the contractors, Messrs. Shedd & Sarle. A brief resumé of

the progress of the work during the past year will no doubt be of interest.

March 9, 1894, the five plats covering that part of the city surveyed by A. B. Drake and platted to a scale of 80 feet to an inch, were delivered to the Board of Public Works and by them delivered to the supervisors. The contractors then transcribed these plats to a scale of 60 feet to an inch, the scale adopted by the city, and on May 1 the 21 plats covering the first section of the contract were accepted by the supervisors and turned over to the city. Prior to this, at the request of the Board of Assessors, an agreement was made with the contractors to complete the entire survey by January 1, 1895, and to deliver by August 15, 1894, preliminary tracings of all that part of the city lying south of the Fall River branch, and Tarkiln Hill road, and east of Acushnet avenue, excepting the plats already delivered. The latter part of this agreement was carried out, thus enabling the assessors to make use of the platting system almost two years in advance of the original plan.

By September 1 the working plans of this portion of the survey, as well as those of the balance of the city north to the town line, 114 in all, were delivered to the supervisors for their inspection under the contract. This work has been going on steadily since that date, under my personal supervision, with frequent consultations with the other supervisors, Mr. Henry H. Crapo and Mr. L. LeBaron Holmes. As fast as the plots were inspected they were returned to the contractors with the corrections we desired made, the finished plat and tracing being then made up.

At this date the work is nearly completed to the Nash road. It will be noted that this has not been accomplished within the time fixed by the agreement as stated above. In explanation of this I will state that the supervisors soon

found that a careful inspection of the plats could not be concluded within the time specified; it was therefore decided that the importance of the work justified us in taking all the time necessary to make the inspection thorough and complete. We hope now to deliver to the City Council the finished plats of the entire city by May 1, 1895.

Maintenance:—

The maintenance of the platting system is a subject to which I have given a considerable amount of thought, besides discussing it at considerable length with the Board of Assessors. It must be evident that in order to be of the greatest value the plats should be kept corrected as nearly up to date as is possible without too much interference with their use by the assessors. The plan I have proposed, and which the assessors approve, is for the Engineering Department to take charge of the transfers in the Registry of Deeds, and by wills at Taunton, making the necessary corrections on the plats as opportunities occur, the plats, however, to be completely corrected on May 1 of each year, and to make as required by the assessors blue prints of the plats for their use in the field.

This department has already done a considerable amount of work during the past year on the plats delivered May 1, and on the balance of the plats since September 1, on which date the contractors ceased their work in the field.

It should also be borne in mind that the platting system is not alone of value to the assessors; it is almost of equal importance to this department in the conduct of its work. This in itself is an important reason for placing the care of the plats with the Engineering Department.

PARK COMMISSIONERS.

A very large amount of work was performed for this Board during the year, including surveys of the boundary lines of all the parks. Two plans of each park were turned over to the Commissioners.

Buttonwood: —

A topographical survey was made of this park, including the land north to Kempton street, south to Hawthorn street, and west to the town line. A plan and report for the development of the water feature, also a plan and report for the drainage of the wet portions, were submitted. Acting upon a suggestion in the first report, several pipe wells were driven to develop an underground supply of water. Although water was found it would rise only to within three feet of the surface, and could be pumped freely in but two of the wells. The formation at this point proved to be too hard and close either for the free flow of water to the pipes, or for sinking the pipes by driving below a certain depth. The same difficulty was met in Fairhaven, where the pipes were driven by the assistance of a water jet through a similar formation into a water-bearing stratum of sand and gravel.

I do not predict that such a stratum underlies Buttonwood pond; but I would like to say that the fact that the Acushnet river is within one and one-half miles of the pond and about ninety (90) feet below it in level, is no argument against either a water-bearing stratum beneath the pond or the possibility of its being under sufficient pressure to produce a flowing well. In all probability immediately overlying the bed-rock is a stratum of coarse gravel and sand, which will contain water unless it is completely cut off from surface water by some overlying impervious stratum. The level of this water will depend

upon extraneous conditions. If, for instance, near the northern extremity of this water-shed at the Hathaway road this water stratum should reach nearly or quite to the surface, we would have a *head* sufficient to produce a flowing well at the pond. The presence of a close, impervious stratum near the surface at the pond is no evidence that there is not a pervious stratum beneath, communicating with the surface at several other points. And if there is such a water-bearing stratum beneath, then the impervious stratum is a decided advantage.

I might fortify these statements by many illustrations. I will simply refer again to the Fairhaven wells, as they are near by. They are much nearer the shore, and above it, and yet several of them flow.

Brooklawn:—

A topographical survey of the east end of this park was made and mapped; also a plan for a drive around the clearing west of the house. A plan of the south entrance addition, with drive, and a plan showing the park and land north to Tarkiln road and east to the river, were also made.

Common:—

A complete topographical survey and map was made of this park.

It has been my earnest desire to submit to the Board a plan for the improvement of this much ignored but very important breathing spot of a thickly settled portion of the city; but other duties have forced me to postpone this to next year.

The marsh land bounded by Orchard, Rivet, Crapo and Cove road was also surveyed and a plan submitted to the Board showing owners and areas.

There is a matter strongly connected with the broad subject of parks that so far has been passed over in all discussions of this question. To my knowledge there is hardly another city of our size in New England where less space is provided for playgrounds. Not one of our schools has room enough within its own grounds for its pupils to play any game that will provide intelligent physical exercise. With one exception, none of the schools have the necessary open-air room sufficiently near, even on private property, for use. I would earnestly suggest that while on this question you give some consideration to the creation of suitable playgrounds in different parts of the city.

A portion of the common might be set off and improved for this purpose. The city also owns a lot at the foot of Howland street which could not be put to a better use.

SPECIAL INSTRUMENTS.

Near the close of the year the Council made a special appropriation to this department of \$700, for the purchase of three instruments,—a tide gauge, a self-registering rain gauge, and a current meter. A brief report of the advantages of these instruments to the city, for the investigation of matters pertaining to the sewerage systems of the city, was made to the Board of Public Works and received their approval.

Only one of the instruments, a tide gauge, has been purchased and that not yet set up, so that a report of the results derived from their use will have to be deferred to some future time. It might be well, however, to briefly describe the instruments and the purpose of the investigation for which they are to be secured.

Tide Gauge:—

No systematic investigation of the variation of the tides of the harbor and river has ever been carried on over a

period of time extended enough to draw accurate conclusions. By the use of the self-recording gauge we will have a daily record of the tides, which in time will enable the accurate determination of the relation of the city datum to true mean high water; also the extremes of high and low water. As we now have some 29 sewers varying in size from 12 inches to six feet in diameter that empty into tidewater, and all submerged at high water, it will be seen that the tides play a most important part in the discharge capacity of these sewers. Especially is this true in the case of such sewers as the Grinnell street, which is only two and one-half feet above mean high water at Fourth street. The plan already referred to, which I am having prepared to show all of the sewers affected by the tides, will be corrected from time to time in accordance with the records obtained by the tide gauge.

Rain Gauge:—

The general use of this apparatus is the determination of the total rainfall in 24 hours, or during the entire period of a storm; whereas it is the period and rate of maximum rainfall which is the chief factor for consideration in calculating the discharge capacity of sewers. For this purpose it is essential that we use a self-registering rain gauge such as I have proposed, although I have not yet decided upon the particular make of instrument to be purchased.

Current Meter:—

This mechanical device for measuring the flow of water in conduits, etc., has been recently applied to the measurement of the flow of sewage with considerable success, and it is my intention to use it for the measurement of the flow in those sewers already described as discharging at times under a considerable tidal head.

The urgency of the investigation I have outlined may not be apparent to every one. In fact, I hope that it is in advance of imperative necessity, because the longer the period of time covered the more thorough it will be and the more valuable the results.

A little thought will show that a large proportion of the sewage of the city must pass through sewers built before the population was more than one-half what it is now, and without any anticipation of such a growth.

In addition to the increase of sewage due to this added population, we must bear in mind that each year we are passing a larger proportion of the rainfall through the sewers, due to the constantly increasing area of paved streets, the cutting off of natural water ways, and the discharge of roof water into drains. In fact, in a combined system like ours the amount of actual sewage is a secondary matter as compared with the rainfall.

The disposition of the rainfall is accomplished in three ways: evaporation, percolation through the soil, and surface flow. The last two are the most important, with, as already stated, a constantly growing importance of the latter.

OUR HARBOR AND WHARVES.

The question of the creation of more and better wharf facilities is one of such importance and scope that I approach it with some hesitation; but the fact that it is one of the problems of modern times impels me to briefly call to your attention the opportunities and advantages of our situation. New Bedford has an unusually long shore line, extending as it does from the Head of the River to the Dartmouth line, a distance of nine (9) miles, although for the present we would hardly be justified in considering as available for wharf development anything south of Grinnell street or north of Belleville wharf, inasmuch as this

gives a water frontage on the Harbor Commissioners' line of about 15,800 feet. The present wharves are practically confined to that portion of the water front lying between Grinnell street and Maxfield street, a distance on the harbor line of about 5,400 feet. In this distance there are some twenty-one (21) wharves, not including Fish island, of which number only eight are public wharves, with no public landing, the rest being either a part of some business which maintains them entirely for their own use, or else the property of the N. Y., N. H. & H. R. R. At present probably one of the most valuable portions of the water front lies between Walnut street and the bridge, a distance of about 1,980 feet, of which the railroad company owns a lineal length north and south of 763 feet. Table annexed gives more detailed information in regard to the existing wharves.

This latter fact in itself would not be a matter for serious concern, were it not for the impression which seems to occupy the public mind that this ownership is not for the purpose of developing the water carrying trade of this port, but rather for its suppression. This impression may or may not be justified by the facts; but in view of the well known efforts of the railroad to divert freight to other channels, our citizens cannot but view this absorption of the water front with serious concern for the future. To show how this present situation impressed an entirely disinterested party, I will quote from the report of Mr. John D. Fouquet, civil engineer, to the City Council of 1893, on the question of abolishing the grade crossings:—

“Again, if I may be allowed to suggest it, what is to prevent the Old Colony Railroad company from securing all of the dock property not now owned by them, to which access can only be obtained by crossing tracks at grade, and thus preventing the enforcement of the law in regard to grade crossings? It certainly would cost them far less than to elevate the tracks, in the end.”

The natural conclusion would be that if the railroad would take such a step to prevent what to them appears an unnecessary expense, in one direction, why would they not do the same to secure a pecuniary advantage in some other direction?

I might cite here a few of the natural advantages that New Bedford possesses for the development of a greater commerce by water.

First: It is the furthestmost eastern point to which freight from the west or south can be carried by water and re-shipped by rail, without incurring the dangers of the Nantucket shoals.

Second: Sailing vessels of any size or draft may reach, under their own canvas, under any condition of wind, a safe anchorage less than two miles from the inner harbor. With favorable winds this distance can safely be passed under sail, the actual length of narrow channel for drafts of 18 to 22 feet being less than one mile.

Third: A draft of 18 feet can be carried into the inner harbor at any stage of water except extreme low tides. Vessels drawing from 18 to 21 feet of water and carrying as high as 2,200 tons of coal enter and discharge at the P. & R. dock without serious trouble.

Fourth: The inner harbor is as nearly absolutely land-locked and safe as is possible with its flowed area. As the bottom is soft, it is possible by dredging to make all of this area available for anchorage purposes.

Fifth: The mean rise and fall of the tide is about four feet. There are no troubles, then, from swift tides, and unusual tidal disturbances are rare.

It has been often claimed that New Bedford can never hope to be a great centre of commerce because it has only one railroad, therefore it can never have that competition

and service which is so essential to the development of a purely carrying trade. But this is not a *natural condition*, it is purely artificial. If the facilities for commerce are provided, and it comes, surely its distribution is a simple matter.

Now we have got the location, the harbor, quite a number of wharves, and a considerable commerce, as the following tables of the yearly arrivals during the past five years, the principal imports, vessels passing through the draw, and estimated imports for 1892 and 1893 will show. What more can we do? Several of the wharves now have a depth at their ends of 18 feet at low water, but this depth cannot be carried far from them.

There is not a single wharf entirely free from the danger of being submerged at extreme high tides. Not one has any modern conveniences for unloading general merchandise. The only covered wharf on the water front belongs to the railroad company. In other words, we want wharves that will be located and constructed on the most modern ideas, in order that they may accommodate not only the commerce of to-day, but of the future.

Now it seems rather singular that the water front, with its natural advantages and the important part it once played in the growth and prosperity of the whaling business, should have now fallen so low in the public estimation.

One explanation of this may be that in the past, and even now, the majority of the wharves have been incidental to some business other than that of a purely carrying trade.

The history of most harbor developments when conducted by private enterprise is a record of the building of wharves and piers under the controlling conditions of first cost incidental to too conservative a management or a want

of funds, with a lack of care during their use, so that when trade increases it is necessary to rebuild them, both for stability and better accommodations. It is also a matter of common history that however promising and lucrative the future may appear to a port in its infancy, it is a difficult matter to procure private capital for such schemes.

It is a self-evident fact that the wharves and other developments of a harbor must be in advance of the actual wants of trade, for this reason: the capital invested in such an enterprise must remain for an uncertain length of time unproductive, or else the trade of the port will be subjected to charges so exorbitant as to practically ruin the very object of the improvement.

Under private ownership there is seldom ever any attention paid to the possible effect upon the future. Careful marine surveys are rarely made, the construction is entirely with reference to the immediate property under improvement, and in the majority of cases of a decidedly temporary character. In these waters the presence of the *teredo navalis* makes any structure of piling short lived, and yet for reasons of first cost it is the only method of construction that private enterprise would consider practicable.

For this reason the tendency in this country has been gradually inclining to the practice abroad, where in most of the ports the developments have either been carried on directly by the governments, or else with considerable financial assistance from them.

New York has been for some years steadily increasing its ownership of the water front, and probably there is no department in that great city that has given more satisfaction, produced more permanent improvements and contributed more to the growth and wealth of the city than the Department of Docks.

San Francisco in 1863 began the acquisition and development of her water front under the control of the State Board of Harbor Commissioners. They now have constructed about two miles of sea-wall. I will insert here the balance sheet of their total expenditures and receipts from 1863 to 1892.

From this it will be seen that this great system of wharves and warehouses has been not only built but paid for out of its own earnings.

Boston is agitating the question of municipal ownership of their water front, and I believe it is only in this way that such an enterprise can be successfully developed and maintained.

It is doubtful if New Bedford could select a more advantageous opportunity to begin such a project. Our situation is also somewhat unique, inasmuch as the water front can be purchased, and with it the flowed area to the channel, as all of the earlier deeds extended the property lines into the river to the channel.

I am not prepared now to suggest any specific lines for development and construction, other than as already suggested, which covers broadly new wharves with deeper water, the dredging out of a larger area for deep-draft anchorage, and quite possibly the partial or complete filling up of the shallow water between the mainland and Palmer's island, to produce a greater scour in the channel. But these are matters that can only be intelligently discussed after exhaustive surveys and study. There is no question, however, but what the city would in time reclaim considerable areas of land now submerged, which would be very valuable for manufacturing and warehouse purposes. They would also be able to secure outlets for many of our sewers directly into the channel, where the more rapidly moving waters would insure its final removal, with less

trouble from silting than is experienced now with the sewers emptying at the shore line into the slack water caused by the projecting piers.

Since commencing the above, George F. Bartlett, Esq., of the Board of Public Works, has recommended through the public press municipal ownership and improvement of our wharves; and as in line with the plan he suggests, I would call your attention to the investigation made by the City Council of Providence, in 1891, to develop the advantages of that city as a commercial point. I have some of the maps made in connection with this investigation, and they show very conclusively how the natural advantages of a city may be published and brought to the attention of the public at large at a very small outlay.

REPORT OF THE STATE BOARD OF HARBOR COMMISSIONERS OF CALIFORNIA.

BALANCE SHEET

FROM NOVEMBER 4, 1863, TO JUNE 30, 1892.

RECEIPTS.

From dockage, tolls, wharfage, rents, etc.,	\$11,359,422.77
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DISBURSEMENTS.

Salaries of commissioners, engineers, attorneys, wharfingers, collectors, fuel, lights, rent, etc.,	\$2,472,289.61
Constructing and repairing wharves, sheds, etc.,	2,362,560.46
Constructing sea-wall and improving lots,	2,543,774.39
Purchase and construction of dredges, etc.,	145,712.01
Dredging,	1,288,909.51
Payroll of crew of fire-boat,	57,542.16
Suspense account (defalcation),	23,308.10
Various losses, tolls, etc., returned,	30,423.16
Constructing and operating belt railroad,	81,635.07
Cash in treasury,	353,268.30
	\$11,359,422.77

CASH.

	Dr.
To amount remitted to state treasurer,	\$6,532,994.22
	Cr.
By amount drawn from state treasurer,	\$6,179,725.92
By cash on hand,	353,268.30
	\$6,532,994.22

ARRIVALS AT THE PORT OF NEW BEDFORD.

Year.	Steamers.	Ships, Barks, etc.	Schooners.	Barges.	Total.	Tonnage.	
						Gross.	Net.
1890	954	21	779	307	2061	816,601	606,054
1891	1108	12	723	254	2097	1,057,193	702,251
1892	1091	8	695	241	2035	1,008,815	740,138
1893	997	10	740	229	1976	953,012	716,670
1894	1036	13	619	215	1883	824,762	619,730

PASSED THROUGH THE DRAW.

Year.	Ships, Barks, etc.	Schooners.	Barges.	Total of all Crafts.
1890	11	529	123	2503
1891	3	549	125	2413
1892	4	518	160	2516
1893	2	583	275	2980
1894	10	498	100	2975

PRINCIPAL IMPORTS BY WATER, IN VALUE AND BULK.

1892.	Cotton, about	70,000 bales,	value,	\$2,851,000
	Coal, "	400,000 tons,	"	1,601,200
1893.	Cotton, about	66,000 bales,	value,	2,640,000
	Coal, "	450,000 tons,	"	1,800,000

ESTIMATED VALUE OF FREIGHT.

RECEIVED BY WATER.

	1892.	1893.
Coal,	\$1,601,200	\$1,800,000
Cotton,	2,851,000	2,640,000
Grain and forage,	535,000	480,000
Vegetables,	93,100	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 3em; margin-right: 5px;">{</div> <div style="text-align: center;"> Included in General Mdse. </div> </div>
Live Stock,	8,200	
Fish, Oysters, etc.,	220,000	
Naval Stores,	20,700	
Lumber and products,	400,000	
General Merchandise,	2,800,000	3,000,000
Sundries,	1,552,000	1,000,000
	<hr/>	<hr/>
	\$10,081,200	\$9,270,000

SHIPPED BY WATER.

	1892.	1893.
Tobacco,	\$2,000	\$3,000
Fish, Oysters, etc.,	150,000	215,000
Lumber, etc.,	15,000	11,800
Coal and Minerals,	1,200	2,000
General Merchandise,	8,410,000	7,300,000
Grain and Forage,	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 3em; margin-right: 5px;">{</div> <div style="text-align: center;"> In Gen. Mdse. </div> </div>	2,500
Vegetables, etc.,		61,800
Cotton and products,		4,200
	<hr/>	<hr/>
	\$8,578,200	\$7,600,300

Compiled from tables in the New Bedford Custom House.

WHARVES FROM GRINNELL STREET TO MAXFIELD STREET.

	Extreme depth at low water. FEET.	Frontage on the harbor line. FEET.	Dist'ce from wh'rf to har- bor line. FEET.	Lineal wat'r frontage of wharf. FEET.
Hastings'.	8	340	416	1146
Greene & Wood's.	8		360	966
A. W. Holmes'.	9		653	217
F. T. Akin & Co.'s.	12		475	640
N. B. Gas Co.'s.			770	510.25
Philadelphia & Reading.	18	485	62	2232.59
Merrill's.	13	163	210	1494
Steamboat. N. Y., N. H. & H. R. R.	13	} 725	539	} 2779.5
Commercial. "	18.5		57	
Merchants'. "			7	
Taber's.	11.5	152	19	920
Rotch's (south).	13.5	} 357		} 1299.56
Rotch's (north).	22			
Hazzard's. N. Y., N. H. & H. R. R.	17	168		418.5
Corson's.	18	79		218.5
U. St. Railway Co.	12.5	306		306.4
Blossom's.	18.5	175		305
Wilcox & Richmond's.	17	171		1016.8
Howland's.	13.5	207		1012.7
Rodman's.	11	407		1828.9
Foot of Union street.		52	405	121
Central,	12	162	5	833
Vacant front north of Hazzard.		78	78	78.05
Vacant front north of Bridge.		230		230
Fish Island (area within harbor lines = 11 acres 143 rods).		3420		2705
Totals.		7677		21,232

The last column of "water frontage" cannot be taken as the available dockage length. With most of the wharves the extreme end is the only part a vessel of any draft can unload at.

This completes a description of the work of the department for the past year, with such suggestions as seemed to be appropriate and worthy of your consideration. I have endeavored to avoid long descriptions; but should it be your wish to know more in detail of the past work, it will be not only my duty, but a pleasure to supply you with this information.

I have purposely referred very briefly to some matters, and left untouched others, involving engineering problems in which I not only confess great personal interest, but believe to be legitimate and natural subjects for this department to have the care of.

A full discussion, however, of such matters is not possible without a more thorough investigation than I feel justified in making without your instructions empowering me to do so.

In closing, I wish to thank the many citizens and members of the City Council and of other departments who have from time to time kindly assisted this department.

Respectfully submitted,

WILLIAM F. WILLIAMS,
City Land Surveyor.

CITY OF NEW BEDFORD.

IN THE YEAR EIGHTEEN HUNDRED AND NINETY-FIVE.

*An Ordinance changing the name of "City Land Surveyor"
to "City Engineer."*

Be it ordained by the City Council of the City of New
Bedford as follows:—

SECTION 1. The name of the office of "City Land Surveyor" is hereby changed to "City Engineer," and all the duties heretofore devolving upon the "City Land Surveyor" shall henceforth be performed by the "City Engineer."

SECTION 2. The change of name of the office, provided by this ordinance, shall not affect any act done, or any right accruing or accrued or established, and any person who, at the time this ordinance takes effect shall hold the office of City Land Surveyor, shall continue to hold office, but under the name of City Engineer, for the term for which he was elected, according to the ordinances in force respecting the office of City Land Surveyor.

SECTION 3. This ordinance shall take effect upon its passage.

IN BOARD OF ALDERMEN, March 14, 1895.

Passed to be ordained.

DAVID L. PARKER, Mayor.

IN COMMON COUNCIL, 3 mo., 14, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR., President.

Approved March 15, 1895.

DAVID L. PARKER, Mayor.

A true copy. Attest:

D. B. LEONARD, City Clerk.

CITY OF NEW BEDFORD.

IN THE YEAR ONE THOUSAND EIGHT HUNDRED AND
NINETY-THREE.

An Ordinance defining the duties of City Land Surveyor.

Be it ordained by the City Council of the City of New Bedford, as follows :—

SECTION 1. The City Land Surveyor shall have charge of all matters relating to surveying and civil engineering in connection with the business of the city. His department shall be called the Engineering Department. He shall devote his whole time to the service of the city, and shall hold no other office under the city government or any department thereof. He shall receive in full compensation for his services such salary as the City Council may from time to time fix and determine.

SECTION 2. It shall be the duty of the City Land Surveyor to make and present such surveys, plans, delineations, statements, estimates, and reports in relation to the grading, laying out and altering of streets and sewers, and do such other work proper to be performed by a surveyor or civil engineer in relation to the business of the city as may be required by the Mayor, the City Council or either branch thereof, or any committee thereof, or of any department or board of the city. He shall make such corrections and changes in the Assessors' plats as may be required by the Board of Assessors. He shall keep a record alphabetically arranged of all highways in the city.

SECTION 3. The City Land Surveyor may furnish to persons about to build any structure within the city, the line and grade of the street or streets adjacent to such structure, and may, in connection with the Inspector of Buildings, make such rules and regulations in relation to furnishing such information as may seem to them proper.

SECTION 4. All plans, delineations, estimates and reports, together with all field books, notes and other memoranda made by the City Land Surveyor or any of his assistants in connection with their official duties, shall be and remain the property of the city. And it shall be the duty of the City Land Surveyor to preserve the same properly classified and indexed.

SECTION 5. The City Land Surveyor shall annually in the month of January present to the City Council a report in relation to the Engineering Department, showing the number of persons employed, the detailed expenses of the department, and any general information in regard to the same that he may deem expedient.

SECTION 6. The City Land Surveyor may from time to time employ such assistants as he shall require in the performance of his duties with the consent and under the direction of the Joint Standing Committee on Roads, Bridges and Sewers, and may expend such sums for materials or incidental expenses as may be necessary; provided, however, that all such expenditures for the employment of assistants and for materials and other incidental expenses, and all contracts for the same, shall be limited to the amount actually appropriated by the City Council to the Engineering Department.

SECTION 7. All expenditures in connection with the Engineering Department shall be examined and certified to by the City Land Surveyor, and approved by the Chair-

man of the Committee on Roads, Bridges and Sewers. The Committee of Audit shall not certify or approve any account of claim against the city for surveying or civil engineering work other than those approved as above, unless the same are especially authorized by vote of the City Council, or provided for by some special appropriation.

SECTION 8. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

SECTION 9. This ordinance shall take effect upon its passage.

IN BOARD OF ALDERMEN, December 8, 1893.

Passed to be ordained.

J. C. BROCK, Mayor.

IN COMMON COUNCIL, December 8, 1893.

Passed to be ordained.

SAMUEL C. HART, President.

Approved December 9, 1893.

J. C. BROCK, Mayor.

A true copy. Attest:

DANIEL B. LEONARD, City Clerk.

NEW STREETS LAID OUT AND ACCEPTED IN 1894.

STREET.	FROM	TO	35 ft. wide	40 ft. wide	50 ft. wide	60 ft. wide	100 ft. wide
Bolton road	62.58 n. of Rockdale av.	Rockdale avenue.					
Borden	Bedford	Grove.					
Brownell avenue	Hawthorn	Kempton.		371.96		62.58	
Cross	Leonard	Pine.		206.2			3410.27
Dudley	Brock avenue	West French avenue.			1159.0		
Front	Gifford	Delano.		370.11			
Glover	Austin	Collins.		295.62			
Granfield court	Coggeshall	north 262.45 feet.		262.45			
Leonard	Cross	Water.		250.33			
Morton court	Cove	north 512.58 feet.	512.58				
Pierce	Elm	Kempton.		527.60			
Pierce	Court	Elm.		449.25			
Pine	Cross	Water.		250.27			
Pine Grove	Tarklin Hill road	Pine Grove cemetery.			1268.3		
Total lengths.			512.58	2983.79	2427.3	62.58	3410.27

A total of 9396.52 feet, or 1⁷/₁₀ miles,

Total length of streets accepted and widened
in 1894,

16,060.56 feet, or 3.042 miles.

Streets discontinued in 1894,

Rockdale avenue from Cove road to Dartmouth (old layout); width 50 feet.

Brock avenue from French avenue to Marine park (40-foot widening); width 40 feet.

Street names changed in 1894,

Granfield street to Granfield court.

Middle Point road to Brock avenue.

Street widening made but not accepted,

Rockdale avenue from Kempton street to Hathaway road, from 40 feet to 80 feet; length 7345.12 feet.

Total length of streets and widenings laid out
but not accepted in 1894,

20,943.08 feet, 3.966 miles.

Total length of streets and widenings laid
out in 1894,

30,339.60 feet, 5.746 miles.

NEW STREETS LAID OUT IN 1893 AND ACCEPTED IN 1894.

STREET.	FROM	TO	40 FEET	50 FEET
Armour,	Arnold	Union,		606.33
Beetle,	Acushnet avenue	Bowditch,		525.16
Mill,	Ash	Park,	710.05	
Mill,	Newton	Florence,	1245.70	
Mill,	Rockdale avenue	Kempton,		614.80
Totals,			1955.75	1746.29

Total length, 3702.04 feet, or .701 miles.

STREET WIDENINGS LAID OUT IN 1893 AND ACCEPTED
IN 1894.

STREET	FROM	TO	WIDENED	LGTH
Kempton,	Rockdale ave.,	Dartmouth line.	40 ft. on S. side.	2962

STREETS LAID OUT IN 1894, BUT NOT ACCEPTED.

STREET	FROM	TO	WIDTH	LENGTH
Brooklawn Pk,	Entrance		60	414
Dover,	Second	Acushnet ave.	20	188.83
Hazard lane,	Front	Water.	30	235.67
Hemlock,	Rockdale ave.	236.72 south of Rockland.	40 & 50	2899.44
Herman ave.,	Acushnet ave.	Mt. Pleasant.	100	5465.28
Middle,	Emerson	Rockdale ave.	40	3295.82
Robin (Bay),	Dartmouth	Cottage.	40	292.65
Short,	Grape	Allen.	50	431.10
West,	Grape	Allen.	40	375.17
Total,				13,597.96

Land deeded to the city by George F. Bartlett, Esq., trustee, for use as a street, 60 feet wide, from Tarkiln Hill road to Bowditch street, 1634.71 feet; accepted by the city.

STREETS UPON WHICH LEVELS WERE RUN AND GRADE
ESTABLISHED IN 1894.

STREET.	FROM	TO	LENGTH
Bolton,	62.58 N. of Rockdale	Rockdale avenue.	62.58
Borden,	Bedford	Grove.	371.96
Brownell ave.,	Hawthorn	Kempton.	3410.27
Cross,	Pine	Leonard.	206.20
Dudley,	Brock avenue	West French ave.	1159
Front,	Gifford	Delano.	370.11
Glover,	Austin	Collins.	295.62
Granfield court,	Coggeshall	N. 262.45 feet.	262.45
Leonard,	Cross	Water.	250.33
Morton court,	Cove	N. 512.58 feet.	512.58
Pierce,	Court	Kempton.	976.85
Pine,	Cross	Water.	250.27
Pine Grove,	Tarkiln Hill road	Pine Grove c'm'y.	1268.30
Total,			9396.52

STREETS UPON WHICH LEVELS WERE RUN, PROPOSED
GRADE FIXED, BUT NOT ESTABLISHED.

STREET.	FROM	TO	LENGTH.	FOR WHAT PURPOSE.
Arnold,	Cottage	Ash.	565	Catch-basins.
Bay,	Dartmouth	Cottage.	292.65	Water pipe.
Bullard,	Acushnet ave.	Bowditch.	630.20	Water pipe.
County,	Rivet	Thompson.	392	Gutter E. side.
Hollyhock,	Dartmouth	Field.	576.60	Water pipe.
Howland,	Water	Acushnet ave.		Curbing.
Jenny-Lind,	Kempton	Milton.	971	New house.
Riverside ave.,	Sawyer	Next st. north.	167	New house.
Rockdale ave.,	Cove road	Bolton road.	710	Fence.
Swamp,	Cottage	Cedar.	317	New house.
Vine,	Durfee	Mt. Vernon.	957.70	New house.
William,	Purchase	Pleasant.	267	Building.
Total,			5846.15	

STREETS UPON WHICH LEVELS WERE RUN, PROFILES
MADE, BUT NO FURTHER ACTION TAKEN.

STREET.	FROM	TO	LENGTH.	AT REQUEST OF
Acushnet ave.,	Hillman	Maxfield.	264.7	Architect.
" "	Hicks	Weld.	74	Architect.
" "	N. and S.	Herman ave.	767.2	Bd. Pub. Wks.
Bannister,	Peckham	Coggeshall.	220	C'y Prop. com.
Belleville ave.,	Kilburn	Cedar Grove.	727	Bd. Pub. Wks.
Brooklawn pk,	Entrance		414	"
Cedar,	Mill	North.	170	"
Chancery,	Hawthorn	Clinton.	522	W'r Wks. dep.
Clevel'nd ave.,	Cove	South.	350	"
Cove road,	Rockdale ave.	Dartm'th line.	1650	Bd. Pub. Wks.
Elm,	Acushnet ave.	Pleasant.	461.5	Architect.
Field.	Hollyhock	Stowell.	160	W'r Wks. dep.
First.	School	Union.	313	Bd. Pub. Wks.
Francis,	Court	Kempton.	1007.5	"
Fourth.	Spring	Union.	212.8	Architect.
Hathaway av.,	Acushnet ave.	Church.	1773.6	W'r Wks. dep.
Hazard lane,	Front	Water.	235.7	Bd. Pub. Wks.
Hemlock,	Rockdale ave.	North.	1039.9	"
Hemlock,	Larch	236.72 south of Rockland.	977.2	"
Herman ave.,	Acushnet ave.	Mt. Pleasant.	5465.3	"
Hillman,	Acushnet ave.	Purchase.	215.3	Architect.
Holly,	Belleville ave.	Front.	472	W'r Wks. dep.
Hunter,	Kempton	Hillman.	700	Bd. Pub. Wks.
*Kilburn,	The river	Belleville ave.	760	Architect.
Maxfield,	Acushnet ave.	Purchase st.	218.9	Bd. Pub. Wks.
*Merrimac,	The river	Railroad.	1420	"
Middle,	Emerson	Rockdale ave.	3295.8	W'r Wks. dep.
Morton court,	Cove	North.	500	Private party.
Mt. Vernon,	Mt. Pleasant	Vine.	339.7	C'y Prop. com.
Penniman,	Reynolds	Myrtle.	255	Architect.
Purchase ave.,	Fall River R.R.	So. to a street.	1092	"
Purchase st.,	Hillman	Maxfield.	266.6	C'y Prop. com.
Reynolds,	Clark	Penniman.	145	Private party.
Riverside ave.,	Contempl'd st.	River.	373	
Rockdale ave.,	Bolton road	Dartmouth.	1253	Bd. Pub. Wks.
Rockdale ave.,	Maxfield	Hathaway r'd.	6291.7	W'r Wks. dep.
Rockland,	Orchard	Hemlock.	650	Bd. Pub. Wks.
School,	Front	Fourth.	1097	"
Second,	School	Union.	313	"
Short,	Grape	Allen.	431.1	"

LEVELS RUN, ETC.—*Continued.*

STREET.	FROM	TO	LENGTH.	AT REQUEST OF
Spring,	Water	Second.	228	Bd. Pub. Wks.
Summer,	Elm	Hillman.	1300	"
Union,	Railroad	Second.	776	"
Union,	Acushnet ave.	Fourth.	210.5	Architect.
Wamsutta,	River	Front.	505	Bd. Pub. Wks.
*Washburn,	The river	Belleville ave.	576	"
Water,	Cove	Hillman.	8846.5	
Weld,	Acushnet ave.	Bowditch.	228	Architect.
West,	Grape	Allen.	375.2	Bd. Pub. Wks.
A street,	Purchase	Purchase ave.	440	Architect.
Total,			50,379.7	

*Including soundings.

Total length of levels run, 65,622.4 feet, or 12.428 miles.

CHECK LEVELS TO ESTABLISH BENCH MARKS.

FROM	TO	VIA	NO. OF B. M.	LENGTH
City Hall	Buttonwood p'k,	William, Court, Ash, Union sts.	8	6800
Nash road and railroad	Lund's corner,	Nash road and Acushnet ave.	6	8000
City Hall	Social & Harmony	Sixth, County, Cove, McGurk, Social.	30	9000
Rivet and County	Dartmouth and Fruit,	Rivet, Dartmouth.	9	3200
Totals,			53	27,000

STREETS NUMBERED IN 1894.

STREET.	FROM	TO	Interval in feet.	No. of Numbers Given.
Babbitt,	Dartmouth	Cemetery.	20	13
Beetle,	Belleville ave.	Bowditch.	25	13
Bently,	Acushnet ave.	Bowditch.	25	4
Blackmer,	River	Water.	20	14
Bullard,	Belleville ave.	Acushnet ave.	25	11
Bullock,	Willow	Durfee.		10
Coggeshall,	Acushnet ave.	Reynolds.	20	16
Columbia,	Clay	Allen.	20	6
Cotter,	Cedar Grove	Coggeshall.	25	3
Cove,	East French ave.	County.	20	18
Delano,	Front	County.	20	30
Division,	Water	County.	14	17
Front,	Coggeshall	Phillips ave.	25	17
Fruit,	Bolton road	Dartmouth.	15	21
Granfield court,	Coggeshall	North.	25	4
Hawthorn,	County	Rockdale ave.	30	28
Hemlock,	Rockland	Larch.	25	17
Hillman,	Chancery	Hunter.	20	14
Holly,	Belleville ave.	Brook.	25	9
Homer,	Parker	Locust.	20	9
Howard,	Cedar Grove	Beetle.	20	10
Independent,	County	Crapo.	20	10
Jouvett,	County	Crapo.	20	3
Katharine,	County	Crapo.	20	28
Market,	Pleasant	Sixth.	15	7
Marvin,	Front	Acushnet ave.	20	11
Maxfield,	Railroad	Rockdale ave.	20	96
Mill.	Park	Newton.	20	9
Mitchell,	Coggeshall	Sawyer.	25	8
Mosher,	County	Crapo.	20	23
Nelson,	County	Crapo.	20	14
Nye,	Belleville ave.	Acushnet ave.	25	3
Palmer,	Allen	Kempton.	25	10
Peckham,	County	Reynolds.	20	5
Richmond,	Parker	Maitland.		9
Rivet,	Front	Dartmouth.	15	89
Robeson,	County	Shawmut ave.	25	18
Scott,	County	Crapo.	20	2
Second,	Union	Cove.	20	209
Spooner,	Lombard	Dartmouth.	20	3
Short,	Grape	Allen.	20	6
Ward,	Hickory	North of Allen.	20	9
Washington,	Fourth	Dartmouth.	20	62
Weld,	Acushnet ave.	Mt. Pleasant.	12 & 20	56
Winsor,	County	Crapo.	20	29
Total, 45 streets,				1013

PARTIAL LIST OF STREETS RENUMBERED BY SUPPLYING
MISSING NUMBERS.

STREET.	FROM	TO	No. of Num- bers Given.
Acushnet ave.,	Division	William.	51
Fourth,	Rivet	Union.	47
Kempton,	Second	Dartmouth line.	34
Pleasant,	Union	Weld.	17
Purchase,	Union	Sawyer.	116
Union,	Front	Ash.	33
Water,	Union	Cove.	125

CITY OF NEW BEDFORD.

IN BOARD OF ALDERMEN,

February 14, 1895.

Received, ordered printed in the City Documents, and also referred to the Committee on Roads, Bridges and Sewers, with instructions to report back to the City Council at as early a date as possible such recommendations as to them may seem advisable, upon the various suggestions therein contained, and sent down for concurrence.

DANIEL B. LEONARD,

City Clerk.

IN COMMON COUNCIL,

2 mo., 28, 1895.

Concurred.

WM. A. MACKIE,

Clerk.

1894—CITY DOCUMENT No. 12.

ANNUAL REPORT

— OF —

Superintendent of Public Buildings,

— ALSO —

Inspector of Buildings,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

REPORT

—OF—

Superintendent of Public Buildings.

OFFICE OF INSPECTOR OF BUILDINGS,
NEW BEDFORD, Mass., January 1, 1895.

*To His Honor the Mayor and City Council of the City
of New Bedford.*

GENTLEMEN:—As superintendent of the city's buildings I have to report that the new Madison street school house and the extensive addition to the Acushnet avenue school house were completed and occupied at the beginning of the present school year.

Both of these buildings have been thoroughly constructed and equipped. The heating and ventilation are found to be well nigh perfect.

The new Davis street engine house was completed in August. This is admitted to be one of the best buildings of its kind and one that our citizens may well be proud of.

A new boiler house has been built at the Almshouse and two new tubular steam boilers put in. The entire steam heating system throughout the house has been refitted in a very satisfactory manner. This work was much needed.

The roofs and chimneys here were found to be in a bad condition, and have been put in thorough repair. The

yard between the main building and boiler house has been concreted, and much needed sheds and covered passages provided for the use of the inmates and to facilitate the work of the institution. The kitchen floor has been laid in Portland cement. The cellar floor where old boilers were located has been concreted.

It was found necessary to make some repairs on the brick work and roofs of No. 7 engine house.

The drainage at No. 2 engine house was found to be in bad condition. This has been remedied and a new cement floor laid in the cellar, and the outside brick work repaired and pointed in cement.

The drainage and sanitary arrangements at No. 1 engine house were found to be in a deplorable condition. This has been remedied, and it is hoped that no trouble of this kind will occur in those houses for some years to come.

Various necessary repairs were made in many buildings under the direction of the proper committees, which leaves the public buildings in very good condition.

Respectfully submitted.

EDMUND O'KEEFE,
Superintendent of Public Buildings.

REPORT

—OF—

INSPECTOR OF BUILDINGS.

REPORT

BUILDING STATISTICS FOR 1894.

Whole number of permits issued during the year for new buildings, alterations and repairs was 369, the estimated value being \$795,860. Classified as follows :

Dwellings, singly and in blocks,	\$240,000.00
Stores and dwellings combined,	58,000.00
Charitable institutions (new) and churches repaired,	124,000.00
Business buildings, (stores and offices,)	81,300.00
Buildings for manufacturing purposes,	118,000.00
Additions to dwellings, and buildings moved, altered and repaired,	76,560.00
City buildings (new) completed and old repaired,	79,000.00
Miscellaneous structures, (stables, sheds, etc.,)	19,000.00
	<hr/>
	\$795,860.00

Many examinations have been made by the Inspector in cases where there was doubt as to the safety of the structures examined.

It is gratifying to note that the owners or builders have in all cases complied with the advice given. In one case the upper story of a building deemed unsafe was taken down by the owner, thereby making the building more secure.

I would renew my recommendations of a year ago, that the limits of the second fire district be extended, to include the entire city. An ordinance to this effect was passed by the Board of Aldermen, but was not acted upon by the Council. This would require all persons building

in any part of the city to obtain building permits, and would make more complete the work of the department.

An ordinance approved Sept. 16, 1893, made it the duty of the Inspector of Buildings to issue building permits. This was found to work well in practice, and permits to build were issued promptly when applied for. This ordinance has been repealed by an ordinance approved Oct. 25, 1894, which places the granting of building permits with the committee on buildings in the fire district.

There is much complaint by builders and others at the necessary delay in granting permits caused by the change.

It would be well that this matter receive due attention.

It would be well to provide by ordinance to have the line and grade of street given in all building permits; also the depth of the sewer in the street, so as to avoid placing the cellar bottom of any building below the sewer level. This would avoid trouble and expense to the city in the future.

I wish to say a word regarding fire escapes on the outside of buildings in this city. Many of these are of such construction as to be of little use in case of fire.

A much safer system known as the "Tower Fire Escapes," used in Philadelphia, can be seen at my office, and would repay examination.

Respectfully submitted.

EDMUND O'KEEFE,

Inspector of Buildings.

1894—CITY DOCUMENT No. 13.

REPORT

OF THE

BOARD

OF

OVERSEERS OF THE POOR

OF THE

CITY OF NEW BEDFORD,

FOR THE YEAR 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

MEMBERS OF THE BOARD.

JAMES E. STANTON,
CHARLES S. PAISLER,
ALBERT H. W. CARPENTER.

OFFICERS OF THE BOARD.

JAMES E. STANTON,
Chairman and Secretary.
ELLA F. BUCKLYN,
Clerk to the Board.
WILLIAM G. POTTER,
Physician to the Board.
AUGUSTUS A. WOOD,
Visitor to the Board.
ALBERT A. CHACE,
Superintendent of Almshouse.
MRS. ALBERT A. CHACE,
Matron of Almshouse.
REV. EDWARD WILLIAMS,
Chaplain of Almshouse.
STEPHEN P. COFFIN,
Superintendent of Wood and Coal Yard.

REPORT.

To His Honor the Mayor and the City Council of the City of New Bedford.

GENTLEMEN:—The Board of Overseers of the Poor respectfully present the following Report for the year ending December 31, 1894.

The appropriation for the year was \$42,696, and the gross expense \$45,165.62, leaving a deficit of \$2,469.62 to be transferred from unappropriated funds. This year was marked by a difference in the manner of conducting the work of the department, inasmuch as heretofore the receipts from different sources were added to our appropriation; but now the credits go to the account of unappropriated funds, which this year to the credit of this department were \$9,869.94, leaving really as net expenditure \$35,295.68.

Very much to our regret the expenditures were beyond our anticipation, but as we recall the year through which we have just passed with its stagnation of business in every branch of industry, a feeling of contentment is mingled with our regret, that there was such a thing as public charity to alleviate the sufferings of those who in many instances before this have always been self-supporting.

During the first months of the year came the call for aid from the idle thousands who were thrown out of work, not from any fault of their own, but from the extreme

business depression all over the country, and this department was barely righted from the severe strain and additional work when the long textile strike commenced, August 20, and again thousands were out of employment, and the poor department was one of activity and bustle, to attend to the various calls made upon it. Additional help was secured for a few months to keep the department work in order. It is to be hoped that the lesson learned during the severe hard times may lead to the practice of economy and saving in the future, that they may be better prepared for a like emergency.

Many changes occurred in the department. Thomas H. Knowles, an Overseer of the Poor since 1889, resigned February 21, 1894, and Charles S. Paisler was elected to fill his unexpired term; also the resignation on March 15, 1894, of the Chairman and Secretary, Orrick Smalley, on account of ill health, which later resulted in his death,—a faithful and conscientious officer always. Albert H. W. Carpenter was chosen to fill his unexpired term. James E. Stanton, a member of the Board since 1891, was elected Chairman and Secretary.

The management of the Almshouse under Superintendent and Matron, Albert A. Chace and wife, has been most satisfactorily executed, and our appreciation of their services we are pleased to record.

The Visitor has carefully investigated all cases brought to our notice, and after a visit to the homes of each applicant has earnestly endeavored to be most conscientious in his decisions as to the requirements of each case presented. Every case has been visited once a month, and appears to be productive of much good, and also in the line of economy.

The Board is under great obligations to the very able and efficient Clerk for the faithful manner in which she has performed her duties during the year.

The tabulated statements herewith presented will show the manner in which the appropriation has been expended.

Respectfully submitted.

JAMES E. STANTON.

CHARLES S. PAISLER.

A. H. W. CARPENTER.

Overseers of the Poor of New Bedford.

FINANCIAL STATEMENT.

DR.

To amount of appropriation,	\$42,696.00
To amount of transfer from unappropriated funds,	2,469.62
	<hr/>
	\$45,165.62

CR.

By amounts expended, as per monthly audits, as follows :

MONTHS.	Outside Relief.	Lunatic Hospitals.	Cities and Towns.	Almshouse.	TOTALS.
January,	\$3,159.21	\$1,977.07	\$102.23	\$883.02	\$6,121.53
February,	3,055.79	361.21	121 20	783.15	4,321.35
March,	2,415.62		52.00	904.08	3,371.70
April,	1,617.37	2,276.58		956.17	4,904.12
May,	1,552.62		26.00	812.26	2,390.88
June,	1,265.73			874.16	2,139.89
July,	1,336.47	2,330.54	205.89	890.84	4,763.74
August,	1,290.30		55.37	1,002.87	2,348.54
September,	2,067.56		65.07	927.24	3,059.87
October,	2,302.91	2,223.63	33.85	947.56	5,507.95
November,	1,647.16	185.73	36.30	1,037.47	2,906.66
December,	1,801.17		37.48	1,490.74	3,329.39
Totals,	\$23,565.91	\$9,354.76	\$735.39	\$11,509.56	\$45,165.62

EXPENDITURES IN DETAIL FOR OUTSIDE RELIEF IN 1894.

MONTHLY AUDITS.	Groceries	Lunatic Hospital	Cities and Towns	Cash orders	Salaries and Travel	Physician and Medicine	Burials	Boots and Clothing	Transportation	Horse hire	Office Expenses	Stationery and Printing	Board Outside	Wood and Coal Yard	Totals
January,	\$1749 00	\$1977 07	\$102 23	\$168 51	\$212 49	\$137 00	\$172 00	2 00	\$46 85	\$8 75		\$25 65	\$169 65	\$467 31	\$5238 51
February,	1607 50	361 21	121 20	144 18	212 49	139 50	88 50		30 00		\$1 75	4 15		827 72	3538 20
March,	1167 00		52 00	131 86	284 89	140 00	123 00		30 00	4 00	50 25	60		483 92	2467 62
April,	885 00	2276 58		154 50	237 49	139 00	60 25	17 55		3 00	5 45			169 13	3947 95
May,	898 60		26 00	140 29	195 83	135 50	101 00			2 50		19 40		59 59	1578 62
June,	652 00			161 73	195 83	141 20	23 00			6 00	17 05	19 72		49 20	1265 73
July,	640 00	2330 54	205 89	206 19	195 83	135 00	113 00				3 25			42 70	3872 90
August,	632 00		55 37	115 20	195 83	135 00	108 00		50 00		4 25		6 42	43 60	1345 67
September,	1220 50		65 07	142 58	195 83	135 00	122 00		145 00	75	50 00	5 50		50 40	2132 63
October,	978 50	2223 63	33 85	126 75	195 83	141 00	231 00			5 00	30	4 00		620 53	4560 39
November,	680 00	185 73	36 30	130 70	245 83	135 00	21 00					14 22	64 83	375 48	1869 19
December,	750 38		37 48	118 95	286 22	166 06	128 00	5 25			12 87	11 35		322 09	1838 65
Totals,	\$11,840 98	\$9354 76	\$735 39	\$1741 44	\$2054 49	\$1679 26	\$1290 75	\$24 80	\$301 85	\$30 00	\$145 17	\$104 59	\$241 00	\$3511 58	\$83,056 06

DETAILED EXPENDITURES AT THE ALMSHOUSE, 1894.

MONTHS.	Flour and Grain	Dry Goods and Clothing	Beef, Fish, etc., etc	Groceries	Shoes, Hats and Leather	Furniture and Crockery	Hardware	Fuel	Repairs on Premises	Carriages, Repairs and Blacksmithing	Superintendent, Labor and Nursing	Medicine	Oils, Paints, etc.	Dressing	Miscellaneous	Totals.
January,	\$77 56	\$18 59	\$89 84	\$194 96	\$17 14	\$2 14	\$9 80	\$93 70	\$20 60	\$4 45	\$318 84	\$30 00			\$5 40	\$883 02
February,	73 48	57 27	67 02	156 65	16 50	2 87	6 84	69 27			319 16	12 89			1 20	783 15
March,	70 24	62 40	81 77	150 32	12 44	8 98	84 61	66 02	14 24	2 10	320 34	9 99	\$11 08		9 55	904 08
April,	96 91	24 95	72 23	165 00	10 40	2 14	53 95	157 69	1 80	18 57	323 78	23 05			5 70	956 17
May,	101 32	46 90	85 97	116 25	27 27	8 13	14 80	13 53	7 40	20 26	315 09	47 21	7 40		73	812 26
June,	65 55	33 36	72 05	138 80	15 21	15 75	24 40	64 28	3 86	35 75	311 78	40 75	5 37		45 25	874 16
July,	87 63	21 55	74 38	170 06	8 56	5 22	14 73	40 63	6 75	15 40	418 42	14 74	83		12 00	890 84
August,	82 72	51 89	86 33	145 47	16 6	54 25	14 94	50 92	20 55	22 79	284 68	20 59	1 48		150 00	1002 87
September,	160 47	41 45	98 41	153 65	28 67	20 34	9 60	33 00		22 30	330 22	45 23			44 50	927 24
October,	109 22	40 30	94 84	219 00	33 45	30	9 38	55 84		10 05	355 53	13 70	4 75		1 20	947 56
November,	114 36	48 65	97 43	176 92	29 32	10 11	14 45	93 42	6 32		426 53	16 67	2 99			1037 47
December,	118 61	51 39	49 55	160 70	22 10	7 37	2 26	123 49	12 30	41 05	301 18	39 11	5 20	\$427 13	129 30	1490 74
Totals,	\$1098 07	\$501 00	\$969 82	\$1947 78	\$236 06	\$137 60	\$259 76	\$861 79	\$33 82	\$192 72	\$4025 55	\$313 93	\$39 10	\$427 13	\$404 83	\$11,509 56

OVERSEERS OF THE POOR.

11

STATISTICS OF OUTSIDE RELIEF.

Gross cost of persons outside of Almshouse, 1894,	\$33,656.06
Amount paid for support of persons in State lunatic hospitals and in other cities and towns chargeable to this city,	\$10,090.15
Number of families aided in 1894,	1,034
" " settlement here,	441
" " settlement elsewhere,	149
" " State paupers,	444
Number of persons aided,	3,288
" " settlement here, males 409, females 692.	
" " settlement elsewhere, males 214, females 256.	
" " State paupers, males 860, females 857.	
Average cost of aid to each family, yearly,	\$22.79
Average cost of aid to each person, yearly,	7.16

TRANSPORTATION.

Number of families sent to their homes,	33
" persons sent to their homes,	97
" persons sent to State Almshouse,	76

BURIALS.

Males 74, females 65,	139
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INSANE.

Number of insane at asylums during the year, males 32 females 43.	
Remaining at city's expense, December 31, 1894,	61
At Taunton Lunatic Hospital,	55
Westboro Insane Hospital,	2
Worcester Insane Asylum,	2
Worcester Lunatic Hospital,	2

PAUPERS AIDED ELSEWHERE,

But having settlement here (exclusive of lunatics), families 36, persons 82.	
Amount paid for their support in 1894,	\$735.39

ALMSHOUSE REGISTER.

Number remaining December 31, 1893,

74

MONTHS.	ADMITTED.	DISCHARGED.	REMAINING.
January,	9	9	74
February,	10	12	72
March,	6	14	64
April,	14	7	71
May,	10	11	70
June,	8	17	61
July,	10	4	67
August,	16	7	76
September,	14	9	81
October,	8	15	74
November,	8	6	76
December,	12	10	78
TOTALS,	125	121	

Whole number during the year,	199
Discharged during the year,	121
Remaining December 31, 1894,	78
Average daily number,	78

PRODUCTS OF FARM FOR 1894.

Hay,	118 tons.
Straw,	5 "
Potatoes,	569 bushels.
Oats,	115 "
Beets,	247 "
Carrots,	20 "
Onions,	62 "
Turnips,	224 "
Parsnips,	24 "
Peas,	26 "
String beans,	18 "
Dried beans,	7 "
Sweet corn,	698 doz. ears.
Cabbage,	2,600 heads.
Pork,	5,255 pounds.
Veal,	1,054 "
Milk,	30,183 quarts.
Celery, tomatoes and cucumbers in abundance.	

WORKHOUSE REGISTER.

Number remaining December 31, 1893,

27

MONTHS.	ADMITTED.	DISCHARGED.	REMAINING.
January,	4	5	26
February,	2	2	26
March,	6	4	28
April,	4	5	27
May,	3	6	24
June,	7	3	28
July,	7	4	31
August,	2	6	27
September,	6	8	25
October,	2	6	21
November,	4	5	20
December,	3	5	18
TOTALS,	50	59	

Whole number during the year, 77

Discharged during the year, 59

Remaining December 31, 1894, 18

Average daily number, 26

REPORT
OF THE
PHYSICIAN TO THE BOARD OF OVERSEERS OF THE POOR,
FOR THE YEAR ENDING DEC. 31, 1894.

GENTLEMEN : — From January 1 to December 31, 1894, I have made 1144 house visits, received 839 office calls, and visited the Almshouse 86 times.

I have reported 24 births and 34 deaths; 10 of the deaths occurred at the Almshouse.

During this, my second term, as physician to your Board, I can but repeat my thanks of a year ago for your ever kind and cordial treatment, and my associations with the department during my whole term of office will ever be a pleasant memory.

My best wish to my successor is that he may receive the same experience and finish his work with you with as pleasant recollections.

I am, very respectfully,

WILLIAM G. POTTER,

Physician to the Board.

IN BOARD OF ALDERMEN,
January 24, 1895.

Received and ordered printed in the City Documents,
and sent down for concurrence.

D. B. LEONARD,
City Clerk.

IN COMMON COUNCIL,
January 24, 1895.

Concurred.

WM. A. MACKIE,
Clerk.

1894—CITY DOCUMENT No. 14.

FIRST ANNUAL REPORT
OF THE
DEPARTMENT OF PARKS

For the Year 1894.



NEW BEDFORD, MASS.:
PRINTED FOR THE COMMISSIONERS.
1895.

NEW BEDFORD:
E. ANTHONY & SONS, Incorp., CITY PRINTERS.
1895.

COMMISSIONERS.

STEPHEN A. BROWNELL, JOHN H. BARROWS,
MORGAN ROTCH, GEO. F. BARTLETT,
SAVORY C. HATHAWAY.

OFFICERS.

CHAIRMAN EX-OFFICIO.

STEPHEN A. BROWNELL.

SECRETARY.

WILLIAM S. COOK.

SUPERINTENDENT.

ALBERT B. DRAKE.

CONSULTING ENGINEER.

W. F. WILLIAMS,

City Engineer.

REPORT.

CITY OF NEW BEDFORD,
OFFICE OF PARK COMMISSION,
ODD FELLOWS' BUILDING,
January 5, 1895.

To the City Council of the City of New Bedford.

GENTLEMEN:—The Board of Park Commissioners herewith submit for your consideration their first annual Report for the year ending January 5, 1895.

PARK COMMISSION.

The first meeting of this Commission was held April 20, 1894, at which the Board organized with Hon. Stephen A. Brownell, Mayor, Chairman; John H. Barrows, President of the Common Council; Morgan Rotch, George F. Bartlett and Savory C. Hathaway.

William S. Cook was elected Secretary, and Albert B. Drake was chosen Superintendent.

During the year thirty-seven meetings of the Board have been held, beside various visits which have been made to the parks of the city.

At the first meeting of the Commission land previously purchased for park purposes was legally condemned as such and names established as follows: Buttonwood Park, Brooklawn Park, Common, Grove Park, and Triangle Park.

During the latter part of the session of the Legislature of 1894 an act to authorize the city to accept the grant of the United States of the government property at Clarks

Point was passed, and became a law June 1, 1894. Under this law all expenditure previously made upon the property was approved and any future outlay of money authorized. The act was accepted by the Board June 18, and June 22 the name of the park was created as Marine Park.

The first active work upon the parks was commenced in the spring of the year, mainly for the purpose of affording employment to a large number of men, who, owing to the stagnation of business, were without means of livelihood. As the season progressed the work was extended.

At Buttonwood park the groves were cleared, the Court street drive put in good condition for travel, and the lake cleared.

The cleaning out of the pond was done at an expenditure of about \$5,000. A large amount of land dressing was secured, which in the future will prove of such value that this amount will be materially decreased. The depth of the pond was increased, so that, except in exceptionally dry years, the lake will be one of the best features of the park the entire time.

A temporary bridge was constructed across the south end of the pond.

At the west end of the park an avenue, known as Brownell avenue, one hundred feet wide has been laid out, but no work of improvement has as yet been commenced upon it. A summer pavilion was erected near the lake at a cost of \$374.

The menagerie which was started at Brooklawn park has been extended to this park, where the larger animals are now quartered. This move proved one in the right direction, the attendance at the parks being more equally divided, thereby affording more comfort to the public.

At Brooklawn park no material changes or large improvements have been made. That portion of the park

which is already in an improved condition has been well taken care of.

Early in the year the idea of a small menagerie was conceived. With the gifts of friends of the movement and a small outlay by the department a display of animals and birds of considerable size has been collected. This feature, together with the many natural beauties of the park, has tended to attract many thousands of our citizens, so that it is necessary to purchase more settees and to provide a sufficient force of police to keep order.

The ordinances of the Board were rigidly observed, with the result that no trouble or disturbances have occurred.

It was found necessary, owing to the increased attendance, to open a way to the west, thus opening a part of the park which was little resorted to.

The Board has been presented by Mr. George F. Bartlett, trustee, a strip of land sixty feet wide, by which the park will be connected with the railroad station at Acushnet. It is the intention of this Board to construct a walk over the strip, so that the public will then be enabled to reach the park by horse or steam cars.

The Board has purchased of J. Edwards Herman a triangular strip of land at the southeast corner of the park for the purpose of an entrance.

At Marine park, the sea wall which was partially completed last year was continued and completed, and the ground around the fort partially graded.

At Triangle park, the only work of improvement was the raising of grade.

The principal work at the Common consists of the macadamizing of that portion of Pleasant street which lies within the park, the laying of gutters, and the construction of catch-basins, which was badly needed.

Upon June 7, 1894, the Commissioners, accompanied by Mr. Charles Eliot, of the firm of Olmstead, Olmstead & Eliot, landscape architects, and members of the City Council committee on finance, visited the parks of the city.

As a result of the report of Mr. Eliot, the Board entered into a contract with the firm of Olmstead, Olmstead & Eliot to furnish this Board with preliminary working plans for the development of Buttonwood park. These plans are now being prepared.

The Commissioners have visited the parks of Springfield, Boston and Providence, at which places much information of value was secured.

Communications have also been received from nearly every city in the United States where a park system exists, giving information as to the experience of the various cities in the formation of their systems of parks. These communications are at all times open to the inspection of the members of your honorable body.

The Board believes in the purchase of additional land in the west and south parts of the city. These recommendations are more fully set forth, however, in a communication sent to your honorable body under date of December 7, to which we would respectfully call your attention.

For detailed statements of the disbursements for the year, we would refer you to the statement of the Clerk of the Board, which accompanies this report. The report of the Superintendent is included in and made a part of this report. Respectfully submitted.

STEPHEN A. BROWNELL, Chairman.

JOHN H. BARROWS.

MORGAN ROTCH.

GEORGE F. BARTLETT.

SAVORY C. HATHAWAY.

FIRST ANNUAL REPORT
OF THE
SUPERINTENDENT OF PARKS
FOR THE YEAR 1894.

Superintendent's Report.

OFFICE SUPERINTENDENT OF PARKS,

ODD FELLOWS' BUILDING,

December 31, 1894.

To the Park Commissioners of the City of New Bedford.

GENTLEMEN:—I herewith present my report of work accomplished and suggestions of improvements worthy of your consideration.

BROOKLAWN PARK.

AREA: 91 ACRES, 146.06 RODS.

The attendance at this park and the evident enjoyment of the large number of people who have made use of these grounds has been a source of gratification.

The few animals, birds and fowl have proven very attractive and interesting to young and old. The cages are soon to be moved to the southwest of their present location about five hundred feet. The old barn has been sold, removed, and the cellar filled in.

The wood drive has been nearly completed along the north side of the Spooner lot, south on the location of Bowditch street, and east to a point about one thousand feet west of the old barn. The wood drive is to be completed this winter, and will be very pleasant and attractive in summer. I must express regret that you decided to build it at its present width. I would suggest a further expenditure in widening it, as I feel it to be dangerous for women and children to drive in many places.

The monkeys, baboons, alligators, guinea pigs, porcupine and South American squirrels have been placed in the house for the winter. The pea fowl, golden pheasants and raccoons will do very well in the cages.

The wall along the Acushnet avenue front of the Spooner lot is now being relaid. I would suggest the early removal of the old house and the erection of a wooden building, providing refreshments and lounging rooms, with coat and parcel rooms adjoining, and also lavatory and toilet accommodations.

I would suggest the fitting of the Spooner land for ball fields and play grounds.

BUTTONWOOD PARK.

AREA: 62 ACRES, 58.74 RODS.

This park is situated one mile west of City Hall, at the head of Court street. The old buildings have been removed from the land and the cellars filled in. The interior walls have been removed to a large extent and many unsightly holes filled up. The underbrush has been cut out, allowing access to all parts of the wooded portion. A roadway has been trimmed out south of the west end of the old dam. This roadway allows the teams to drive around a small plot of ground and return over the road across the dam.

The most important work has been the excavation of mud from the pond. The sluiceway of the dam was cut down to a point below the bottom of the pond. Ditches for drainage were then cut in all directions to allow the soil and mud to harden. In about two weeks men and teams were set at work excavating the mud and soil from the surface flowed by the pond. This deposit varied from zero to four feet thick.

A part of this material has been used to level up and grade the land of John Green at the northeast of the pond; Mr. Green verbally agreeing not to charge the city for the improvement if the city should at some future time decide to purchase the land for park purposes. The balance of this muck was deposited in heaps at the northeast and west side of the pond. The bottom of the pond after excavation is a very fine cemented sand, very hard and apparently impervious to water.

Upon the suggestion of the City Land Surveyor several wells were driven as an experiment. The water rose in the best well to within a foot of the bottom of the pond. All the wells were abandoned but one near the centre of the dam. A pump has been attached to this at the surface of the dam and the water used for drinking purposes.

The fall rains have filled the pond full, and the indications are good for winter skating. A pavilion 20 by 50 feet has been erected at the east end of the dam. Many rabbits, two hawks, etc., have been given to this park. During the summer I raised by private subscription the sum of \$72. This sum was expended towards the purchase of two bears and four foxes. These animals have proven a great attraction to both old and young. The bears have been housed within a neat iron fence enclosing an apple tree, where they can be readily seen. The fence is 30 feet in diameter.

The deer were placed in a square wire pen 50 by 50 feet. These quarters are much too small for such animals, and I have set the posts for a pen 200 by 300 feet, ready, when it shall meet your approval, to extend the wire fencing around the new enclosure.

The foxes are in very cramped quarters, and should be provided with larger and more roomy cages.

MARINE PARK.

AREA: 64 ACRES, 76.08 RODS.

The wall has been completed as far as the stone will admit on the south end of the point. The total length of this wall is now $2,527\frac{93}{100}$ feet.

The natural advantages and opportunities for improvement upon this park are unsurpassed by any location in the State. More attention should be given to developing this park for immediate use by furnishing some method of transportation of the public. I believe that this would be the park most used during the warm weather if it were possible to get to and from the premises cheaply and conveniently.

GROVE PARK.

AREA: 149.32 RODS.

This little park should be fitted up as a play ground, being in the centre of a large tenement population. It has never been properly graded, and has received the least possible attention. The City Council placed an electric light in the grove during the past summer.

THE COMMON.

AREA: 7 ACRES, 69.50 RODS.

This neat little park has been much abused during the past, practically nothing having been done to improve its use or appearance.

The unsightly fences have been removed, but nothing further attempted. Many existing paths are not used, the public travel having taken other routes and cut for itself a trail to suit present needs.

The plot of ground could be made very attractive, walks could be made to accommodate the public, and old walks,

the relic of former days, obliterated. Much enjoyment could be secured by the young generation in games, and the older generation in the quiet and shade of the trees. The grounds could not be made less attractive than at present.

CITY HALL.

USED BY CONSENT.

Much improvement could be made in the grounds around City Hall at small expense. The fountain in its present situation is far from ornamental. The whole plot should be laid out and reshaped.

THE TRIANGLE.

AREA: 25.86 Rods.

This small park has received a good coating of the soil from Buttonwood pond. Nothing further has been attempted. This plot can be made a very attractive spot for the residents of the vicinity.

SUGGESTIONS.

In the furtherance of your consideration of parks and play grounds for the future I would suggest a number of possible and available plots that would be of great use and pleasure to coming generations.

As you have already considered the subject of additions to existing parks I will not take your time, but with two exceptions refer almost entirely to the magnificent opportunities that New Bedford has to secure, water frontage upon our river, harbor, bay, and Clark's Cove.

I will first call your attention to the two exceptions mentioned above.

First. The taking for parkway purposes all the low swampy land lying west of Oak Grove cemetery and

north from Maxfield street to the Hathaway road. This swamp is from 100 to 1,200 feet wide, and is unfit for dwellings. It can be made a combination of park and boulevard that will be very attractive and an inland pleasure drive of great beauty.

Second. A park must be considered for the northwest section at some time in the future.

With this in view, I would call your attention to the rolling land bounded by Durfee street, Rockdale avenue, Hathaway road and Mt. Pleasant street.

A park on the rolling land in this section in connection with the parkway above proposed would give another breathing spot on the proposed way between Brooklawn and Buttonwood parks.

As to the river front. To the cupidity and neglect of the past nearly all the city rights on the water front have been abandoned by sale or consent. From the Head-of-the-River to the Poor Farm on Clark's Point the city has only two plots of ground on the river front — a small lot next north of Belleville wharf and the Howland street dumping ground. The city formerly had a landing place at the Head-of-the-River, south of the bridge, but public apathy allowed this place to drift away into private control. At present the city has streets open for travel to the river front as follows: Howard avenue, Davis street, Coffin avenue, Sawyer street, Coggeshall street, Washburn street, Kilburn street, Wall street, Bridge street, Coffin street, Rockland street, Blackmer street, Gifford street, Cove street.

Of the above streets none are available for pleasure grounds or boating landings.

Of accepted streets the following have been fenced and enclosed by private owners: Merrimac street, Maxfield street, North street, High street, Middle street, Union street, School street, Walnut street, Howland street.

Of the streets projected to the river front, but not accepted, used for a time, and finally closed by private persons or corporations I would name as follows: Turner's court, Seneca street, Pope street, Hillman street, Elm street, Commercial street, Shepherd's lane, Pine street, South street, Potomska street, Rivet street and Delano street. Many other streets have been projected on paper but not used

The city has no bathing houses or landing for boats.

Several of the departments of the city, notably the Water Works and Public Works, have need of wharf space and facilities for handling heavy articles.

I would suggest that some parts of the river front be secured to the city as early as possible to be used by the Commission for the pleasure, comfort and health of the people. If the frontage is secured to-day, the future will take care of the balance of the work.

I would briefly outline my idea of the subject as follows:—

The main object, of course, is to secure a location near the centre of the city. To do this I would suggest the purchase of all the front between Union and Elm streets, east of the railroad tracks, with the addition of all the outlets to Front street west of the railroad tracks. This tract of land will give a location for not less than two public landings with steps for boats, a reserve of one wharf for the city departments. Public bathing houses can be maintained. This, with the addition of small plots of green grass, flowers and running vines to cover the ugly fence of the railroad location, would be very attractive.

With plenty of settees this location would be much enjoyed by the public.

At least two light foot bridges should be provided for crossing the railroad track overhead, and at least two

grade crossings should be maintained, with gates and tenders to prevent accidents.

An under crossing could be built, and it might be economy to consider such a project. They would be costly to build and maintain, but might well be worth the cost for the convenience, safety and enjoyment of the public.

From this purchase as a centre I will first refer to the section to the north.

Fish Island is so well built over as to leave practically no unimproved land.

Pope's Island. The south front or all claims of owners south of the bridge roadway should be secured. This south frontage commands a view of the harbor and entrance, and splendid views of the city and Fairhaven. The harbor lines admit of extension south of the bridge more than equal to the whole of the present island. The same right should be secured at the north end of the island. The view up the river and of both shores being unsurpassed by any other location in this section. If you could secure money enough, I should like to recommend the purchase of the whole island.

Next in order along the river front a tract should be secured near the foot of Hillman or Maxfield streets. None seems available at present.

Next, I would suggest the purchase of land east of the railroad, between Pearl and Merrimac streets. This tract is about one mile from the first recommended purchase by present lines of travel. Within this tract is the present Willis point, the Raccoon Point of early days. This point, with a little renovating and the extension for sewer outlets, could be made a very pleasant spot.

North of this point the demand is not as urgent, and much good would be effected by securing river frontage near the Coggeshall street bridge and the foot of Coffin

avenue. North of that point there is unlimited opportunity to secure whatever you choose.

From the centre purchase to the south I would first suggest the retention of the Howland street dump as a future breathing spot.

The sale of the right of the city in Howland street from Prospect street to the river was, in my judgment, a mistake.

I would like to call attention to the good this plot would secure to the inhabitants of this neighborhood as a play ground for the children, and later as a place of restful pleasure when it shall have been fitted with grass, trees, flowers and seats.

The population of this neighborhood must be as dense as any portion of the city.

The next desirable section is the tract lying east of Prospect street, between Potomska street and the land of the City Manufacturing Company. This shore right should be secured.

From the foot of Potomska street one of the most attractive spots in this vicinity can be reached by building a foot bridge 20 feet wide across to Palmer's Island. A wooden bridge would be sufficient if well built. This bridge would undoubtedly require a draw for small craft, the channel being too shallow for vessels of much depth. Palmer's Island can be made an ideal island park at small expense. The high ledges are complete in themselves. The marshy shores that now furnish such a fine crop of mosquitoes can be easily filled in.

At some future time, if the demand should warrant the extension of the shores of this island, the Harbor Commissioners would undoubtedly establish lines allowing an increase of at least five times the present area.

The views from this island of the outer harbor, Clark's Point, the city, the inner harbor, river and islands, Fair-

haven and Sconticut Neck are magnificent. The island lies close to the main channel of the entrance to the harbor; all vessels passing in and out between the island and the old fort on the Fairhaven shore.

From the shore at the foot of Potomska street a broad drive can be run south along the shore to connect with East French avenue.

From the Grove park east the land should be taken from the present Grove park between Blackmer and Rivet streets to the shore. This would give a fairly large opening in a thickly populated district.

From the junction of Cove street and East French avenue, entirely around Clark's Point and across the head of Clark's Cove, the entire shore should be condemned for park purposes before the land is divided and built upon with fish houses, boat houses, etc.

Of all the matter pertaining to the river front scheme above set forth I would earnestly recommend:—

First. The purchase of the wharf property from Union to Elm street.

Second. The purchase of Palmer's Island. Undoubtedly the United States Government would grant their property to the city for park purposes as they they have so generously done with the fort property at Clark's Point.

Respectfully submitted.

ALBERT B. DRAKE,
Superintendent of Parks.

FIRST ANNUAL STATEMENT
OF
EXPENDITURES
OF THE
DEPARTMENT OF PARKS
FOR THE YEAR 1894.

Secretary's Report.

NEW BEDFORD, January 5, 1895.

To the Chairman and Members of the Park Commission.

GENTLEMEN:—I have the honor to submit herewith a detailed statement of the expenditures of this department for the year ending January 5, 1895.

The books of the department were opened upon the formal organization of your honorable Board in April, and itemized statements of disbursements date only from April 27, 1894. From January 1 to April 27 the care of the public parks was in the custody of the Board of Public Works, and all expenditures made during that period will be found in the annual report of that Board.

For the purpose of convenience, however, the amount expended by the Board of Public Works is included in the "Financial Statement for the Year," and also in the table showing the entire cost of the department from January 1, 1892, to January 5, 1895.

In presenting, for the information of your body and that of the honorable City Council, the following statements, it has been my aim to avoid long and intricate tables. This being the first report presented by this department to the City Council, it seemed of great importance to originate a style of tables of information, and also in the keeping of the books of the department, that will give all the information required in as simple and congested forms as practicable; with the ultimate view that as the work of the department increases these same forms may be followed and used without becoming cumbersome and therefore impracticable.

During the past year the work of the office has materially increased. A large amount of valuable information has been collected and several books of accounts added. Owing to the limited vault or safe accommodations, these books and papers are without protection from fire. No recommendation from me upon this matter seems necessary.

In closing, I wish to express to the members of the Commission my thanks for the interest displayed in this branch of the work of the department.

All of which is respectfully submitted.

Respectfully yours,

WILLIAM S. COOK, Secretary.

STATEMENT OF PARK EXPENDITURES FOR YEARS 1892-3-4.

PARK COMMISSION IN ACCOUNT WITH CITY TREASURER.

Dr.		Cr.	
1892.	To F. J. Dexter, land, Clark Green, land, John Green, land, J. E. Herman, land, Z. E. Whittemore, land, Grove school lot, Disbursements for year,	1892.	By appropriation, Park bonds, Credits, 1893. By credits, Sale of buildings, Premium on bonds, Potomaska Mill, rent, Sale of building, 1894. By Sale of barn, Bonney street sewer, Sale of cage and turtle, Rent of stands, Highways and streets,
	\$5,000.00 600.00 30,000.00 25,000.00 3,500.00 8,100.00 5,736.87 5,734.79 1,649.55 22,809.40 4,821.86		\$3,000.00 100,000.00 55.55 295.92 1,124.80 8,177.00 33.75 92.50 60.00 61.40 7.00 2.50 42.05
1893.	To disbursements for year,		
1894.	To J. E. Herman, land, Disbursements for year,		
Balance to 1895,			
	\$112,952.47		\$112,952.47

RECAPITULATION.

Total receipts,	\$112,952.47
Total expenditures,	108,130.61
Balance,	<u>\$4,821.86</u>

STATEMENT OF PARK EXPENDITURES — *Continued.*

COMPARATIVE STATEMENT OF EXPENDITURES.		ITEMIZED STATEMENT OF EXPENDITURES	
1892,		1892-3-4.	
1893,	\$77,936.87	Buttonwood park,	\$46,466.88
1894,	5,734.79	Brooklawn park,	40,199.06
	24,458.95	Common,	3,710.22
		Marine park,	6,728.75
		City Hall square,	462.67
		Triangle park,	117.60
		Grove park,	8,903.68
		Pine Grove park,	632.58
		Office and miscellaneous,	909.17
			\$108,130.61
			\$108,130.61

FINANCIAL STATEMENT FOR THE YEAR 1894.

MAY 1, 1894, TO JANUARY 5, 1895.

Buttonwood park,	\$11,965.94	Transfer from parks and squares,	\$1,202.99
Brooklawn park,	7,923.69	Parks fund,	27,228.05
Common,	1,643.96	Receipts,	69.50
Marine park,	1,253.29	Credits, labor,	103.45
Triangle park,	117.60		
Grove park,	9.37		
Office expenses,	569.69		
Incidental expenditures,	298.59		
Balance carried to credit of parks for 1895,	4,821.86		
	<u>\$28,603.99</u>		<u>\$28,603.99</u>
RECAPITULATION.			
Expended January 1 to May 1,	\$676.82	Buttonwood park,	\$12,246.75
" May 1 to January 5, 1895,	23,782.13	Brooklawn park,	8,084.10
		Common,	1,839.42
		Marine park,	1,282.41
		Triangle park,	117.60
		Grove park,	9.37
		City Hall,	11.02
		Office expenses,	569.69
		Incidentals,	298.59
			<u>\$24,458.95</u>
			\$24,458.95

FINANCIAL STATEMENT FOR THE YEAR 1894 — *Continued.*

MAINTENANCE OF BUTTONWOOD PARK.

Labor, teaming and grading,	\$8,496.11	By highways and streets,	\$8.88
Police,	471.20	Net expenditure,	11,957.06
Pavilion,	399.00		
Keeper,	518.00		
Blacksmithing and repairs of tools,	262.73		
Animals,	90.22		
Maintenance of animals,	85.03		
Cages, lumber, netting, etc.,	608.18		
Appraisal of land,	20.00		
Tools, dynamite, paint and miscellaneous supplies,	1,002.93		
Advertising,	10.76		
Telegrams,	1.78		
	<u>\$11,965.94</u>		\$11,965.94

MAINTENANCE OF BROOKLAWN PARK.

Labor, teaming and grading, Police, Keeper, Blacksmithing and repairs of tools, Animals, Maintenance of animals, Cages, lumber, netting, etc., Tools, paint, and miscellaneous sup- plies, Advertising, Sale of barn, Settees, Land purchased,	\$2,546.42 1,307.90 504.01 72.07 64.85 166.35 614.44 222.59 4.21 6.00 765.30 1,649.55	By sale of barn, Sale of cage, Sale of turtle, Highways and streets, Net expenditures,	\$60.00 5.00 2.00 33.17 7,823.52
	\$7,923.69		\$7,923.69

MAINTENANCE OF COMMON.

Keeper, Macadam and gutters, Catch-basins and eyeholes, Setting and painting posts, Supplies, Tools and repairs, Repairs to pump, Repairs to flag pole, Blacksmithing, Painting fence, Teaming,	\$388.50 916.89 181.57 13.16 9.06 57.17 17.95 16.32 3.20 6.00 34.14	By rent of stands, July 4, Net expenditures,	\$2.50 1,641.46
	\$1,643.96		\$1,643.96

FINANCIAL STATEMENT FOR THE YEAR 1894 — *Continued.*

MAINTENANCE OF MARINE PARK.	
Building sea wall, labor, teaming and tools,	\$61.40 1,191.89
	<u>\$1,253.29</u>
MAINTENANCE OF TRIANGLE PARK.	
Grading,	
Grading and teaming,	\$21.10
Carting,	94.52
	<u>1.98</u>
	\$117.60
MAINTENANCE OF GROVE PARK.	
Carting and staking seats,	\$9.37
	<u>\$9.37</u>
MAINTENANCE OF OFFICE.	
Salaries of Superintendent and Secretary,	\$485.07
Printing and stationery,	23.50
Books and records,	58.20
Telegrams and recording deeds,	2.92
	<u>\$569.69</u>

INCIDENTAL EXPENDITURES.

Visit to Springfield,	\$88.70	Net expenditures,	\$298.59
Carriage hire,	67.00		
Visit to Providence,	6.60		
Charles Eliot, inspection of parks,	105.27		
Dinners,	8.50		
Engineering department.	2.30		
Visit to Boston,	20.22		
	<hr/>		
	\$298.59		\$298.59

STATEMENT OF LABOR AND SALARY PAY ROLLS.

1894.	PAY ROLL.	AMOUNT.	POLICE.	LABOR, SKILLED AND UNSKILLED, TEAMS AND SALARIES.	TOTAL.
April	No. 1	\$ 33.84		\$ 33.84	\$ 33.84
May	2	45.37		45.37	45.37
	3	277.38		277.38	277.38
	4	287.49		287.49	287.49
	5	329.74		329.74	329.74
June	6	254.51	\$ 2.90	251.61	254.51
	7	387.09		387.09	387.09
	8	533.34		533.34	533.34
	9	678.84	69.60	609.24	678.84
	10	507.47	27.60	479.87	507.47
July	11	364.57	56.00	308.57	364.57
	12	171.15	28.80	142.35	171.15
	13	126.97	60.40	66.57	126.97
	14	298.91	28.80	270.11	298.91
	15	520.89	56.80	464.09	520.89
August	16	635.85	44.20	591.65	635.85
	17	658.37	45.00	613.37	658.37
	18	760.13	91.20	668.93	760.13
September	19	463.36		463.36	463.36
	20	675.95	177.60	498.35	675.95
	21	1,170.40	82.40	1,088.00	1,170.40
	22	1,139.07	73.60	1,065.47	1,139.07
	23	270.92	74.00	196.92	270.92
October	24	154.66	73.60	81.06	154.66
	25	155.98	66.00	89.98	155.98
	26	150.35	61.60	88.75	150.35
	27	156.86	57.60	99.26	156.86

November	3	28	162.02	70.60	91.42	162.02
	10	29	264.24	73.00	191.24	264.24
	17	30	430.11	70.00	360.11	430.11
	24	31	509.24	64.60	444.64	509.24
December	1	32	447.46	73.20	374.26	447.46
	8	33	507.65	66.80	440.85	507.65
	15	34	163.53	64.60	98.93	163.53
	22	35	176.16	55.80	120.36	176.16
	29	36	143.36	58.40	84.96	143.36
January	5	37	59.36	4.40	54.96	59.36
			\$14,072.59	\$1,779.10	\$12,293.49	\$14,072.59

MONTHLY EXPENDITURES.

May,	labor and supplies,	\$ 653.58
June,	"	3,039.70
July,	"	1,787.30
August,	"	3,755.36
September,	"	5,517.86
October,	"	1,831.65
November,	"	2,037.07
December,	"	5,159.61
		<hr/>
		\$23,782.13

LABOR AND SALARY PAY ROLLS FOR
THE YEAR.

April,	pay roll No. 1,	\$ 33.84
May,	" 2, 3, 4, 5,	939.98
June,	" 6, 7, 8, 9, 10,	2,361.25
July,	" 11, 12, 13, 14,	961.60
August,	" 15, 16, 17, 18,	2,575.24
September,	" 19, 20, 21, 22, 23,	3,719.70
October,	" 24, 25, 26, 27,	617.85
November,	" 28, 29, 30, 31,	1,365.61
December,	" 32, 33, 34, 35, 36,	1,438.16
January,	" 37,	59.36
		<hr/>
		\$14,072.59

SUPPLIES, SKILLED LABOR, ETC., 1894.

May 11.	H. S. Hutchinson & Co., stationery,	\$8.00
	Journal Publishing Co., printing,	1.50
June 11.	Journal Publishing Co., printing,	10.25
	H. S. Hutchinson & Co., pay roll,	8.50
	William S. Cook, recording deeds,	2.92
	F. S. Brightman, books,	31.00
	Highways and streets, carting and tools,	198.24
	C. S. & B. Cummings, nuts,	.30
	E. C. Taber, paint, oil, etc.,	28.83
	George Kirby, Jr., paint,	3.38
	Hatch & Co., express on peacocks,	1.60
	E. & K. C. Terry, lumber,	134.33
	Edward M. Peirce, carriage,	2.00
	S. A. Brownell, expenses to Springfield,	87.00
	A. B. Drake, expenses to Providence,	6.60
	Highways and streets, carting,	1.95
	Highways and streets, carting,	1.36
	George Eggers, dynamite,	23.54
	General sewers, supplies and tools,	23.65
	Highways and streets, carting stone,	237.28
	J. H. Thomson, special service,	2.00
	Leopold Bartel, special service,	4.80
	A. B. Drake, babboons,	34.95
	A. B. Drake, expenses to Springfield,	11.70
July 11.	Purrington, Brown & Richards, cage,	4.75
	F. L. Sowle & Co., paint,	7.50
	Highways and streets, carpentering and tools,	186.37
	Highways and streets, tools,	1.86
	Highways and streets, carting seats,	3.47
	General sewers, axes,	7.34
	F. L. Sowle, paint, nails, etc.,	25.55
	G. Eggers, explosives,	19.50
	Highways and streets, carting and tools,	210.33
	Purrington, Brown & Richards, ladder,	12.00
	B. S. Jenkins, paint,	5.67
	Perkins & Chase, tar felt,	1.87
	Hillman, Washburn & Co., axes,	5.42
	F. T. Akin & Co., lettering signs,	3.90
	N. P. Hayes, scythes, axes, etc.,	31.10
	F. L. Sowle & Co., screen wire,	1.27
	B. S. Jenkins, paint,	1.50
	Perkins & Chase, tar felt,	1.50
	T. M. Hart & Co., awning,	20.90

July 11.	N. P. Hayes, rakes, locks, etc.,	\$16.59
	Perry P. Jenney & Son, sharpening mower,	38.27
	Davis Bros., glass,	.50
	I. L. Ashley, coach,	10.00
Aug. 11.	Highways and streets, carting and blacksmithing,	72.51
	Evening Journal Co., advertising,	3.13
	DeWolf & Vincent, paint,	1.50
	E. Anthony & Sons, advertising,	4.20
	Greene & Wood, lumber,	21.75
	N. P. Sowle, lumber,	.90
	Greene & Wood, lumber,	1.50
	Samuel C. Hunt, plans,	25.00
	F. L. Sowle & Co., wire netting and hardware,	124.42
	P. P. Jenney & Son, sharpening lawn mower,	3.25
	Highways and streets, sperm oil,	.23
	Olmstead, Olmstead & Eliot, inspection of parks,	105.27
	Evening Journal Co., printing,	3.00
	Highways and streets, stock and labor on cages,	58.43
	George Eggers, keys,	.50
	Charles A. Gray, carting settees,	10.00
	F. T. Akin & Co., linseed oil,	1.20
	F. L. Sowle & Co., wire netting and hose,	79.83
	J. N. Gage, strap,	1.35
	E. C. Taber, food for animals,	37.84
	S. C. Lowe, hardware,	4.45
	Wood, Brightman & Co., agate pans,	2.52
	Hatch & Co., express,	3.10
	D. L. Hathaway, stock and labor on cages,	119.49
	DeWolf & Vincent, locks, hinges, etc.,	20.22
	S. C. Lowe, shovels,	13.50
	S. C. Lowe, wire netting,	37.13
	P. P. Jenney & Son, cleaning lawn mower,	1.25
	S. H. Perry, hacks,	45.00
Sept. 11.	Wood, Brightman & Co., material and labor on pumps,	150.39
	Highways and streets, blacksmithing and carting,	183.59
	Sturtevant Bros., pavilion at Buttonwood,	374.00
	Mercury Publishing Co., advertising,	3.43
	S. C. Lowe, shovels and netting,	41.25
	F. L. Sowle & Co., paint and tools,	9.58
	James L. Sherman, lumber,	82.59
	A. B. Drake, telegram,	.53
	Highways and streets, blacksmithing and carpentering,	133.41
	N. B. Cordage Co., whale line,	17.93

Sept. 11.	John McCullough, canvas,	\$1.70
	Combination Ladder Co., settees,	735.00
	F. L. Sowle & Co., netting,	36.60
	A. B. Drake, babboons and turtle,	25.20
	E. & K. C. Terry, lumber,	48.21
	Highways and streets, blacksmithing and carting,	44.50
	N. B. Cordage Co., rope,	28.17
	David Duff & Son, coal,	13.05
	DeWolf & Vincent, drills,	11.80
	Greene & Wood, planking,	2.21
	Wood, Brightman & Co., repairs to pumps,	5.14
	Highways and streets, 300 feet rope,	8.25
	W. F. Williams, expenses to Boston,	2.30
	A. B. Drake, dinners,	8.50
	Evening Journal Co., letter heads,	1.75
Oct. 11.	Brightman Bros., paint,	3.77
	Charles O. Brightman, use of derrick,	3.00
	C. H. Brownell & Son, food for animals,	13.05
	DeWolf & Vincent, tools,	32.21
	George Eggers, dynamite,	8.77
	B. F. Fuller, pans,	1.80
	Greene & Wood, lumber and carting,	14.26
	Highways and streets, blacksmithing, labor, tools, and carpentering,	327.94
	N. P. Hayes, tools and hardware,	95.96
	John McCullough, canvass,	1.70
	N. B. Cordage Co., rope,	17.71
	S. S. Paine & Bro., lime,	1.10
	James L. Sherman, lumber,	40.18
	F. L. Sowle & Co., wire, staples, etc.,	74.70
	Nat P. Sowle, ladder,	2.16
	E. & K. C. Terry, lumber,	25.22
	Wood, Brightman & Co., tunnel, tacks, etc.,	1.87
	George A. Brownell, filing saws,	.75
	Highways and streets, carting,	18.25
	Highways and streets, blacksmithing,	5.48
	Highways and streets, carting,	18.25
	N. P. Hayes, hammers, netting, etc.,	33.91
	S. C. Lowe, hardware,	28.08
	N. Y., N. H. & H. R. R. Co., express on settees,	12.30
	E. C. Taber, food for animals,	23.56
	Charles O. Brightman, use of derrick,	3.00
	Highways and streets, carting and labor,	153.61
	Highways and streets, blacksmithing,	5.64
	James H. Murkland, use of derrick,	24.00

Oct. 11.	Highways and streets, blacksmithing,	\$3.20
	N. P. Hayes, repairs to horse mower,	5.50
	P. P. Jenney & Son, sharpening mower,	4.45
	Highways and streets, carting,	96.50
	L. T. Terry, painting Common fence,	6.00
Nov. 11.	Brightman Bros., oil,	.60
	C. H. Brownell & Sons, supplies for animals,	15.44
	A. B. Drake, expenses on bears,	20.10
	Jonathan Handy, backing and wedges,	1.80
	Hatch & Co., express on deer,	17.50
	N. P. Hayes, 2,750 pounds of iron,	48.13
	Highways and streets, carting and blacksmithing,	64.54
	Joseph P. Kennedy, tub,	.25
	F. W. Oesting, appraising land,	10.00
	G. W. Piper, two deer,	52.62
	F. L. Sowle & Co., hardware and paint,	80.07
	E. & K. C. Terry, lumber and carting,	25.22
	Thomas B. Tripp, appraising land,	10.00
	Wood, Brightman & Co., pipe and chain,	1.74
	A. B. Drake, sundries,	1.00
	Charles A. Gray, carting settees,	8.00
	Highways and streets, carpentering,	13.05
	Highways and streets, blacksmithing,	10.95
	F. L. Sowle & Co., staples, bolts and hinges,	3.30
	E. & K. C. Terry, lumber and carting,	74.98
	Bowker & Tripp, water glass,	.45
	Highways and streets, kerosene,	.43
	Highways and streets, building wall,	25.20
	Highways and streets, repairing pump,	.56
	P. P. Jenney & Son, repairing lawn mower,	4.45
	Evening Journal Co., printing,	7.00
	A. B. Drake, expenses to Boston,	17.22
Dec. 11.	Brightman Bros., paint,	6.98
	C. H. Brownell & Sons, food for animals,	22.20
	Highways and streets, carpentering and tools,	64.54
	Highways and streets, carting,	11.06
	Highways and streets, blacksmithing,	71.93
	N. P. Hayes, hardware and tools,	34.02
	Jonathan Handy, bolts,	.48
	F. L. Sowle & Co., netting, staples, etc.,	43.51
	James L. Sherman, lumber and carting,	233.19
	Southern Mass. Telephone Co., telephone,	1.25
	Wood, Brightman & Co., wire and dippers,	1.92
	George Eggers, exploders,	1.75
	J. Edwards Herman, land,	1,649.55

Dec. 11.	Highways and streets, carpentering and carting,	\$14.11
	Highways and streets, blacksmithing,	7.21
	E. Anthony & Sons, advertising,	1.54
	Evening Journal Co., advertising,	1.45
	Edward C. Taber, food for animals,	35.59
	Highways and streets, oil,	2.51
	Highways and streets, macadam and gutters at Common,	936.13
	General sewers, catch-basin and eyehole at Common,	181.57
	William R. West, painting,	3.92
	Wood, Brightman & Co., repairing pump,	4.00
	Highways and streets, repairs to settees,	3.95
	W. F. Williams, expenses to Boston,	3.00
Jan. 11.	E. C. Taber, supplies for animals,	14.56
	Hillman, Washburn & Co., netting,	11.30
	Denison Bros. Co., coal,	44.00
	A. E. Hathaway, commission on sale of barn.	6.00
	Highways and streets, dynamite,	1.92
	Highways and streets, carting,	8.14
	Highways and streets, blacksmithing,	8.08
	General sewers, dynamite, pipe and cement,	20.38
	C. R. Sherman & Son, thermometer,	.80
	Mercury Publishing Co., advertising,	1.22
	B. S. Jenkins, paint and brushes,	6.49
	F. L. Sowle & Co., hook handles,	1.50
	Hillman, Washburn & Co., sledge handles,	2.92
	David Duff & Son, coal,	11.00
	George D. Green, vegetables,	8.79
	T. M. Hart & Co., rope and thimbles,	9.41
	Purrington, Brown & Richards, shovels,	1.05
	N. B. Cordage Co., hemp filling,	6.93
	George E. Hatch, stove and fixtures,	22.40
	Highways and streets, carpentering and tools,	25.76
	Highways and streets, carting,	1.90
	N. P. Hayes, lanterns,	1.34
	B. S. Jenkins, paint and oil,	4.78
	James L. Sherman, sash and glass,	.55
	F. L. Sowle & Co., hardware,	1.48
	T. M. Hart & Co., rope, paint and labor,	16.32
	Charles A. Gray, teaming, Common,	33.50
	William Baylies, salt,	6.25
	Chas. W. Coggeshall, pin, hooks and pulleys,	37.26
	F. S. Brightman, books and indexes,	10.70
	Total,	<u>\$9,709.54</u>

IN BOARD OF ALDERMEN,

April 11, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

4 mo., 11, 1895.

Concurred.

WILLIAM A. MACKIE, Clerk.

1894—CITY DOCUMENT No. 15.

ANNUAL REPORT

OF THE

INSPECTOR

OF

Milk, Provisions and Cattle

FOR THE

YEAR ENDING DECEMBER 31, 1894.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., PRINTERS TO THE CITY.

1895.

REPORT.

NEW BEDFORD, Mass., December 31, 1894.

*To His Honor the Mayor and the Board of Aldermen of
the City of New Bedford.*

GENTLEMEN:—The report of this office is herewith respectfully submitted.

The main question occupying the attention of this office is the procuring for the citizens of New Bedford pure, wholesome milk. There is no person who realizes the value and great importance of pure milk, both as regards its food value and as a protection against disease, than the inspector. I have made it a duty to procure this end by whatever methods, provided they be honest and legitimate, that in my own experience and that of others who know the value of what they suggest, seem under the circumstances the most promising. The office was not created, as many over-zealous individuals appear to teach, for the mere and exclusive purpose of issuing complaints, but more particularly, if not entirely, for the purpose of securing for the masses pure and unadulterated milk, and my actions have been governed by this motive.

The office is opened during business hours every day, and is visited by the public in all matters relating to the question of milk, provisions and cattle, such as bringing samples of milk and provisions for investigation and making complaints on various matters.

As I never visit dwellings, the only information I have of the character of the family supply is from this source and investigation. No person need be in doubt about the purity of their milk when a visit to the office provided by law for the use of the public will give all needed information and assistance.

The duties of the office have increased more than one hundred per cent during the past few months, —such as inspecting the slaughter of cattle, which alone occupies five afternoons of each week, also attending to the appraisal, killing, post mortems and burying of diseased cattle, etc.

OPERATIONS OF THE YEAR 1894.

Milk licenses granted, 270 at 50 cents, \$135.00.

Inspected over 500 samples of milk, and have found only one that was adulterated, and this was from a farmer. After receiving a warning from me the quantity of milk produced by him decreased fifteen quarts per day, and immediately increased to above standard in quality; and it is a fact that no such small per cent of adulteration exists in the milk supply of any other city in this State.

The complaints in regard to provisions being unfit for food in the past year have been less than any previous year. I have investigated all such complaints made, to the perfect satisfaction of the parties making them, by getting them their money back or a wholesome article in exchange, and wholesome advice to the sellers.

I have made two thorough inspections of all cattle owned within the city limits, and killed and buried seven tuberculous cows whose milk was all consumed in this city. I have also performed careful post mortem examinations upon all of the above cattle and confirmed my diagnosis in every case.

Aside from the above, I have found very little to complain of and much to commend in regard to the care and surroundings of the dairy cattle of our city.

I have quarantined all sick and debilitated animals coming under my notice during the year. Have had two outbreaks of hog cholera,—one herd of six (6) large hogs that all died from its effects and were buried; the other a herd of seven. One case proved fatal; the remaining six were at once quarantined and were not affected,—and I do not think there is a case now within the city limits.

There are two licensed slaughtering establishments within the city limits, which took out licenses about the first of December, which slaughter five afternoons in the week, and I have attended every slaughter and have carefully inspected every animal for tuberculosis, but have been unable thus far to discover a single case. My duty is to seize and bury all diseased animals thus found, and I shall *strictly* enforce this, and also as regards tuberculous dairy cows, to the full extent of my authority, thus giving to the inhabitants of New Bedford as little danger as is possible of contracting (from either meat or milk) this dreaded and fatal disease.

Respectfully submitted,

DR. D. C. ASHLEY,
Inspector of Milk, Provisions, Cattle, etc.

IN BOARD OF ALDERMEN,

January 10, 1895.

Received, ordered printed in the City Documents, and
sent down for concurrence.

D. B. LEONARD, City Clerk.

IN COMMON COUNCIL,

1 mo., 10, 1895.

Concurred.

WM. A. MACKIE, Clerk.

LIST OF JURORS.

CITY OF NEW BEDFORD.

CITY CLERK'S OFFICE,

January 4, 1895.

This certifies the following to be a correct list of persons prepared as provided by law to serve as Jurors for the year 1895.

Attest :

DANIEL B. LEONARD,

City Clerk.

LIST OF JURORS.

A

Adams Charles H. 535 County, no occupation
Adams Stephen F. 118 Mill, dry goods
Ainsworth Joshua, 179 Austin, laborer
Allen Charles, 21 Bonney, stone cutter
Allen Charles N. 81 School, sparmaker
Allen Daniel B. 71 North, tailor
Allen Daniel E. 76 Shawmut av, butcher
Allen Henry C. Hathaway road, farmer
Allen John S. 102 State, retired
Almy Henry B. 96 Willis, upholsterer
Anthony Benjamin, 98 Madison, publisher Standard
Anthony Benjamin H. Ash, s of Hawthorn, clerk
Arey Allen C. 159 Washington, gas fitter
Arigan William J. 587 Purchase, weaver
Arnett Thomas, 5 Willis, teamster
Ashley A. Davis, 947 Acushnet av, pat med dealer
Ashley Joshua B. Jr. 33 North, marketman
Ashley Roland R. 37 Cove, real estate dealer
Atwood William W. 244 Pleasant, shoemaker

B

Bailey George P. 364 Kempton, druggist
Baker Ansel G. 177 Fourth, machinist
Baker Benjamin, 111 Summer, bookkeeper
Baker Michael A. 82 Chestnut, master mariner
Baker William A. 159 Hillman, janitor
Bamford James H. 90 Merrimac, shoemaker
Bamford William, 90 Merrimac, shoemaker
Bancroft Julius V. 194 Pleasant, street sprinkler
Bannister John W. 194 Pleasant, clerk
Bannon John H. 1 Hyacinth, plumber

Barrows Eugene M. 662 County, paint manufacturer
 Bartlett Bourne S. 22 So. Sixth, merchant
 Bartlett Clarence H. 450 County, clerk
 Bartlett George F. 450 County, merchant
 Batchelder Ward C. 31 Dartmouth, machinist
 Bates Lot B. 425 Acushnet av, grocer
 Bates Thomas G. 72 North, retired
 Baylies Charles S. 70 Bedford, clerk
 Bearse Clarence A. 7 Franklin, carpenter
 Beetle Charles H. 732 County, retired
 Bennett George W. n side Howard av, blacksmith
 Bennett Samuel R. 114 High, clerk
 Bennett William H. 2 Richmond, grocer
 Bentley George B. 24 Mosher, top roll coverer
 Bentley Lewis E. 526 Purchase, mill superintendent
 Black Peter, 496 Acushnet av, rigger
 Blackmer Arthur L. 675 County, clerk
 Bliss Frank C. 196 Grinnell, grocer
 Bly Ezra K. room 16, Cummings bldg, clerk
 Bly Leslie A. 37 Madison, machinist
 Boomer Edwin A. '63 Hillman, millinery
 Booth Edward H. 35 Durfee, car inspector
 Booth Francis A. 35 Fifth, accountant
 Booth Zachariah E. 57 Cottage, bookkeeper
 Borden Charles F. 112 Fifth, supt. Mt. Wash. glass wks
 Borden George B. Rockdale av, farmer
 Borden Gilbert B. e s Acushnet av, master mariner
 Borden Prince S. 220 Kempton, master mariner
 Borden Thomas J. 17 Grape, machinist
 Bosworth Peleg, 195 Shawmut av, farmer
 Bosworth William, 435 Cottage, carpenter
 Bouchard John, 121 Locust, barber
 Bourne Henry D. 49 Sycamore, carpenter
 Bowen George S. 82 School, painter
 Bowman George L. 19 Shawmut av, nurse
 Bowman Henry T. 263 Purchase, carpenter
 Brierly Samuel, 249 State, baker
 Briggs Charles F. 172 Fourth, teamster
 Brightman Edward T. e s Rockdale av, butcher
 Brightman Frederick R. 65 So. Sixth, clothier
 Brightman George F. Acushnet av, master mariner

LIST OF JURORS.

5

Brightman Leander, 29 Madison, merchant
 Brightman Oliver P. 591 County, merchant
 Broadmeadow George, 101 Durfee, machinist
 Brock George P. 50 Russell, frame maker
 Brown Herbert A. 46 Sycamore, carpenter
 Brown James, 197 Coffin av, farmer
 Brown William L. G. 114 Sycamore, florist
 Brownell Charles H. Kempton&Florence, marketman
 Brownell Charles T. 153 Mt. Pleasant, farmer
 Brownell Elnathan C. 354 County, marketman
 Brownell Gilbert K. 70 North, shoe dealer
 Brownell George A. 103 No. Ash, carpenter
 Brownell Myron W. 73 State, paint manufacturer
 Brownell Oliver G. 153 Mt. Pleasant, farmer
 Brownell William S. 65 Elm, insurance agent
 Buchell Charles N. 236 Maxfield, shoe dealer
 Bunker Elihu, 401 Purchase, druggist
 Burbank John T. 68 Parker, bookkeeper
 Burgess Charles T. 74 Willis, shoe cutter
 Burgess Thomas, 827 County, grocer
 Bush Andrew M. 383 Purchase, tailor
 Butler William F. 613 County, boat builder

C

Caldwell Albert F. 101 No. Ash, carpenter
 Cannon Albert, 34 Willis, clerk
 Carpenter Albert H. W. 373 Cottage, insurance agent
 Carroll William E. 580 Kempton, carriage maker
 Case Isaac R. 625 County, clerk
 Cavanaugh Jeremiah L. 72 So. Second, blacksmith
 Chadwick Edward E. 140 Summer, meat & provisions
 Chaffee Zachariah, w side Tobey road, farmer
 Champion John T. 314 Coffin av, tailor
 Channing William R. 91 Mill, dentist
 Chase Charles F. Howard av, carpenter
 Chase Ira M. 37 Fifth, bookkeeper
 Chase Walter F. 17 Fifth, ship carpenter
 Chase Warren E. 72 Bedford, editor
 Chase William F. 318 Mt. Pleasant, farmer
 Chausse Joseph, 126 Mt. Pleasant, grocer

Church Charles L. 96 Chestnut, music teacher
Clark Joseph P. H. cont. No. Chancery, wood carver
Clark Lothrop, 72 North, fish dealer
Cleveland George H. V. D. 69 Forest, baker
Clifton Jireh W. 342 Purchase, plumber
Clynes Thomas J. 634 Acushnet av, clerk
Cobb George A. Acushnet av, tinman
Cobb Oliver W. 96 Washington, sail maker
Coffin Hiram B. 80 Mill, millinery
Colby Philip E. 37 Hill, clerk
Cole George F. 112 Fourth, carriage dealer
Cole Theodore W. 74 Hillman, marble worker
Cole William Jr. 76 So. Sixth, treas. Co-op. Ass'n
Cook Charles E. 1042 Acushnet av, real estate agent
Cook Samuel H. 97 Madison, insurance agent
Cornell Charles C. e side Jenny Lind, marketman
Cornell John W. 151 Middle, broker
Cory Andrew T. Rockdale av, farmer
Cory Isaac C. Rockdale av, carriage maker
Coxen Charles H. 109 Durfee, grocer
Cranston Orville W. 51 So. Emerson, upholsterer
Croacher Thomas W. 121 Fifth, sash and blind maker
Cummings Benjamin, 411 County, grocer
Cummings Benjamin T. 271 County, clerk
Cunningham Patrick, 131 So. Second, machinist
Cushing Charles F. 197 Middle, merchant

D

Dagesse Anatole, 66 Robeson, druggist
Dahill Edward F. 85 Austin, shoe dealer
Dammon Silas D. 137 Smith, ship carpenter
Damon Luzon A. 126 Fourth
Darling William, e s Tobey road, farmer
Davenport Dudley, 254 Arnold, grocer
Davis Charles E. 17 Chestnut, machinist
Davis Henry V. Jr. 262 Arnold, foreman
Dawe Fred C. 159 Durfee, machinist
Dean A. Herbert, 217 Middle, clerk
Dean Charles F. 59 Elm, painter
Dehn George R. 5 Linden, baker

LIST OF JURORS.

7

Delano Harrison, 51 Hill, oil gauger
Denham James R. 2d, 242 Acushnet av, clerk
Denham Thomas M. 363 Cottage, shirt manufacturer
Dennis Ephraim K. 193 Middle, contractor
DeWolf Alfred W. 56 Hill, hardware dealer
Dexter Howard N. 56 Campbell, shoemaker
Dias Charles H. 321 Union, clerk
Donaghy Thomas Jr. 103 Acushnet av, clerk
Douglass Frank M. 18 Cedar, druggist
Drew George H. 226 Kempton, calker
Driscoll Daniel F. 11 Linden, grocer
Driscoll Patrick, 212 Middle, salesman
Dunbar William A. 41 Campbell, shoemaker
Dugan Edward P. 130 So. Second, grocer
Durfey Richard T. 75 Rockland, carpenter
Dwight James E. 137 Fourth, grocer

E

Eaton Josiah, Jr. 65 Cottage, music teacher
Edgerton John F. 69 Walden, real estate
Eggers George A. 72 So. Chancery, gun smith
Emery John C. 45 Bedford, Twist Drill
Ennis Charles T. 114 Fourth, clerk
Ennis John H. 21 Maitland, painter
Estes Andrew L. 115 Campbell, carpenter

F

Faisneau George E. Jr. 43 Sycamore, dry goods
Farnum George W. 54 Hillman, boat builder
Faunce Charles L. 9 Homer, carpenter
Field Henry Jr. 55 State, superintendent
Folger Charles F. 61 Hillman, retired
Folger David B. 44 North, grocer
Forbes Joseph C. 201 Cedar, shoemaker
Francis Frank W. 106 Fourth, cigars and tobacco
Freedom John, 319 W. Maxfield, steward
Freeman George H. 23 Seventh, ink manufacturer
Fury Bartholomew P. 413 Purchase, salesman

G

Gallagher Neal, 107 So. Sixth, tailor
Gammons Edgar H. Grand, teamster
Gardner George, 75 Maxfield, retired
Gardner Oliver H. 97 Chestnut, carpenter
Gay Elmer B. 54 Chestnut, foreman
Gibbs John L. 2d, 72 State, supervisor of buildings
Gibbs Lot H. 176 Pleasant, commission merchant
Gibson Samuel S. west side Tobey road, mason
Gifford C. Henry, 26 Walnut, mason
Gifford Jireh B. Howard and Belleville avs, farmer
Gifford Noah, 560 County, photographer
Gifford Richmond A. 101 Cedar, foreman W. W.
Göff Charles H. 11 Emerson, carpenter
Greene Nathaniel H. 204 County, fish dealer
Grundy James, 230 So. Second, glass maker
Gurney William A. w side Acushnet av, grain dealer

H

Hammond Edgar B. 66 North, architect
Hammond Francis W. 70 North, carpenter
Hammond John N. Tobey road, w side, carpenter
Harding James G. 62 State, pump and plumber
Harlow Michael F. 430 Pleasant, loomfixer
Harrington John C. rear 68 Linden, conductor
Harris Charles W. 341 W. Maxfield, undertaker
Harrison Samuel. 83 County, shoedealer
Haskins Elmore P. 95 Chestnut, carpenter
Hatch George C. 1213 Acushnet av, expressman
Hatch Joshua J. 500 Cottage, carpenter
Hathaway Andrew B. Hathaway road, florist
Hathaway Benjamin F. Jr. 12 Pope, clerk
Hathaway James H. Tarkiln Hill road, butcher
Hathaway Jethro H. 498 Cottage, carpenter
Hathaway Paul S. Hathaway road, farmer
Hathaway Savery C. 251 Hawthorn, shoe manuf'r
Hathaway William E. 411 Cedar, hay & grain dealer
Hawes Jonathan C. Acushnet av, master mariner
Hayden John D. 181 Smith, farmer

LIST OF JURORS.

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Hazzard James B. 59 Hill, painter
 Healey Peter J. 444 Pleasant, laborer
 Healey Thomas F. n s Belleville road, real estate agt
 Heppenstone John, 45 Fifth, retired
 Herlihy Patrick, 928 Acushnet av, stone cutter
 Hervey E. Williams, 191 Hawthorn, retired
 Hillman Benjamin, 101 Maxfield, painter
 Hindle William, 322 Pleasant, grocer
 Hitch Otis L. 429 Union, upholsterer
 Holcomb Roland, 67 School, grocer
 Holloway Arod B. 83 Locust, mason
 Holmes David W. 81 Thomas, mason
 Homer Frederick A. 412 County, merchant
 Homer George S. 412 County, merchant
 Howard James S. 16 Fifth, retired
 Howe George A. 53 Dartmouth, solderer
 Howland Daniel W. 305 W. Maxfield, tailor
 Howland Ezra, 284 Union, farmer
 Howland George F. 297 County, no occupation
 Howland Henry, 280 Pleasant, stove dealer
 Howland Jonathan, Jr. 54 Russell, retired
 Howland Paul, Jr. 91 State, engraver
 Howland William D. Middle Point road, mill treas
 Hoxie Frank C. 155 Washington, pattern maker
 Hubbard Herbert F. 236 Pleasant, foreman
 Hunt Samuel C. 147 Maxfield, architect

I

Ivers Samuel, 448 County, treasurer Telephone Co

J

Jackson Thomas W. 591 W. Maxfield, barber
 Jenney Benjamin F. 43 Arch, no occupation
 Jenney Harry C. Smith and Walden, superintendent
 Jenney Henry P. w side Acushnet av, real estate agt
 Jenney William B. 174 Grinnell, mason
 Jennings Edmund E. 215 Maxfield, master mariner

K

Kane James E. 127 Grinnell, book binder
Keene J. Franklin, 67 Parker, carpenter
Keene Leonard Jr. 39 Parker, carpenter
Kelleher Daniel, 56 Parker, bomb lance manufacturer
Kelley William L. 478 County, jeweler
Kenyon Henry W. 910 Acushnet av, no occupation
King Henry L. 236 Pleasant, superintendent
Kingman Gilbert D. 12 Lincoln, clerk
Kirby Charles L. 411 Union, no occupation
Kirby George Jr. 672 County, paint manufacturer
Kirby William A. 173 Middle, carpenter
Kirk John F. 143 State, grain business
Knight Charles W. 48 North, printer

L

Lamb William G. 406 Union, carpenter
Lanagan Daniel P. 12 Walnut, junk dealer
Lapham Joshua G. 183 Pleasant, master mariner
Law George P. W. Maxfield, laundryman
Lawrence Charles E. 115 Fourth, painter
Lawrence Cyrus T. 329 Cedar, gentleman
Lawrence James A. w side Tobey road, farmer
Lawrence James W. 630 County, furniture dealer
Lawton Benjamin, 60 Chestnut, sail maker
Lawton James M. Jr. 80 State, merchant
Leach Harry J. 163 Maxfield, carpenter
Leach William H. H. 75 Sycamore, trav salesman
Leary Dennis Jr. 278 Austin, blacksmith
Lees Sidney, Blackmer and Second, clerk
Lewis Benjamin F. 57 North, painter
Lewis Edgar R. 717 County, clerk
Lewis Joseph S. Jr. 78 Thomas, machinist
Lewis Obed B. 79 Morgan, marketman
Lords James, Edwards, oiler
Lovell Henry S. 14 Pope, no occupation
Lovejoy Amos F. 627 Purchase, carpenter
Luce Arthur G. 53 Hillman, bookkeeper
Luce Hervey E. 111 Maxfield, master mariner

Lund Parkman M. 252 Pleasant, retired
Luscomb Simeon P. 184 Summer, cooper

M

Macomber George P. 774 County, copper works
Macomber James P. 245 Pleasant, merchant
Macomber John W. 265 Union, manager Cordage Co
Macomber Pardon A. 201 Kempton, agent
Macomber William B. 74 State, retired
Macy Arthur W. 161 Grinnell, jeweler
Macy Frank E. 74 Chancery, no occupation
Maine Henry M. 36 North, carpet cleaner
Maker George W. 96 Maxfield, sailmaker
Manchester Ellery L. 11 Emerson, rigger
Manchester Philander F. 379 Cottage, hardware
Mason John L. G. 63 Hillman, mason
Maxfield Frederick T. 191 Kempton, painter
McAfee John K. 63 Fifth, fruit dealer
McCullough John Jr. 55 Maxfield, bookkeeper
McDonald Hugh J. 195 So. Second, carriagesmith
McFarlin James, 71 Spruce, jobber
Meaney Thomas J. 6 W. French av, real estate agent
Milliken George H. 113 Hillman, dry goods
Milliken Lewis E. 73 Hillman, grocer
Mills John M. 65 Foster, marketman
Mills William J. 831 County, no occupation
Mitchell Robert, 382 County, gardener
Moon John, 35 Acushnet av, second-hand furniture
Mosher Charles A. 202 Rockland, carpenter
Mosher Charles H. Rockdale av, ice dealer
Mosher Frederick W. 219 Fourth, carriage maker
Moulton Augustus G. 56 Hill, bookkeeper
Murphy Dennis E. 498 So. First, spinner
Murphy Edward M. 834 County, clerk
Murphy Timothy J. 180 So. Second, glass blower
Myrick Walter R. 13 Eighth, machinist

N

Neal George A. 390 Union, clerk
Nichols George M. River, butcher

Nye Clark D. 87 School, painter
Nye George E. 115 Fifth, machinist
Nye Obed C. 276 Union, merchant
Nye Pemberton H. 709 County, merchant

O

O'Brien John N. 567 Cottage, wood and coal
O'Connor Frank, 299 County, tailor
Oesting F. William, 51 Fifth, trader
Offley John R. Hillman, barber
O'Hearne William, 6 Stanton court, real estate agent
Onley Fred H. 147 Smith, clothes' cleaner
Otheman John, 315 Pleasant, hardware

P

Paddock William C. 445 Cottage, nurse
Paige James H. Mill road, grocer
Paine George W. 137 Summer, lime, brick, etc
Paine Olin S. 504 Acushnet av, clerk
Palmer Ephraim C. 782 Kempton, stair builder
Parker Frederick, 289 Acushnet av, dealer in powder
Parker James N. 91 School, salesman
Parker Valentine, Howard av, mariner
Parsons Thomas L. 131 Elm, broker
Pasell Francis H. 257 Mt. Pleasant, florist
Patnaude Joseph C. 7 Linden, salesman
Paul John W. 29 Parker, insurance agent
Paulding John B. rear 176 Grinnell, shoemaker
Pease James H. 658 County, real estate dealer
Peckham Frank H. 46 School, teamer
Peckham Israel H. Tarkiln hill road, blacksmith
Peirce David B. 161 Maxfield, painter
Penney B. Frank, 2 Spruce, printer
Penney Edward F. 266 County, plumber
Perkins Andrew W. 141 Cedar, roofing and concrete
Perry Samuel H. 111 Hillman, hat dealer
Peterson Zephaniah W. 434 Cottage, carpenter
Phinney Nathan D. 221 Pleasant, gents' furnishings
Phinney Otis B. 84 Elm, clerk

Pierce Erskine H. 52 Fifth, mill supplies
Pierce Lloyd D. 122 Acushnet av, accountant
Piper Augustus D. 153 Elm, city messenger
Pope Frank L. 81 School, passepartout maker
Potter Edwin L. 60 Dartmouth, grocer
Potter George A. Hathaway road, farmer
Potter Stephen R. 479 County, clerk
Potter Sylvanus B. 185 Purchase, master mariner
Price Charles R. 15 Eighth, treas. N. B. Gas & Edison Light Co
Prior James P. 50 North, cooper

R

Randall Charles G. 76 So. Sixth, lumber dealer
Randall George A. 10 Washington, lumber dealer
Raymond Calvin Jr. 104 Smith, expressman
Reed Gustavus L. 230 Union, watchman
Reed Leander, 3 Bay, machinist
Remington Frank L. 73 Linden, plumber
Remington John G. 73 Linden, carpenter
Rexford George P. 68 School, machinist
Rice Adoniram J. 58 Washington, baker
Richards George D. 61 Fifth, house furnishings
Richards William D. 61 Fifth, stable keeper
Richardson John T. 93 Fourth, medicines
Robbins William S. 626 County, carpenter
Ruggles John A. Jr. 145 Summer, salesman
Russell James A. 37 Parker, grocer
Russell James B. 90 Elm, book agent
Russell John A. w side Tobey road, farmer
Ryan Edward T. 958 County, druggist

S

Sadler George H. 198 Rockland, carriage trimmer
Sampson Seth J. 104 State, clerk
Sanders Henry V. 208 Pleasant, clothing dealer
Sanford Isaac T. 111 Acushnet av, foreman
Sawtelle Frank C. 315 Pleasant, crockery dealer
Saxon George E. 628 Purchase, operative

Sayer William L. 76 So. Sixth, editor
Schuler Jacques, 206 Pleasant, shoe dealer
Schwall James B. 13 Bonney, clerk
Searell Charles T. 59 Kempton, carpenter
Searles Mortimer, 190 Acushnet av, rubber stamps
Shaw Charles F. 395 Purchase, merchant
Shaw Elmer H. 71 Fourth, variety store
Shaw Stephen E. 94 State, bookkeeper
Shea Cornelius J. 2 Cornell Place, driver
Sherman Charles H. 180 Grinnell, carpenter
Sherman Isaac C. 26 Bedford, fruit dealer
Sherman James H. 10 Eighth, plumber
Sherman James L. 43 Mill, lumber dealer
Sherman Job B. 171 Kempton, retired
Sherman John D. w side Vine, collector
Sherman William H. 87 School, stable keeper
Shurtleff Israel H. 252 County, druggist
Shurtleff John R. 13 Lincoln, sail maker
Simmons Allen S. 140 Fourth, no occupation
Sisson Otis A. Tobey road, farmer
Slade Caleb, 950 Acushnet av, grocer
Slocum Francis R. 38 Fifth, furniture dealer
Small David S. 610 County, clerk
Smith Emerson, 83 Linden, carpenter
Smith Henry W. 27 Seventh, photographer
Smith John, 276 Coggeshall, weaver
Smith Shubael D. Jr. 81 Mill, clerk
Snow Loum, Hawthorn and Page, merchant
Soule Rufus A. 542 County, shoe manufacturer
Southwick Arnold W. 3 Court, moulder
Sowle Frederick A. 11 Florence, manufacturer
Spooner Arthur C. 28 Spring, engraver
Spooner Roswell, e side Tobey road, farmer
Spooner William E. 179 Fourth, Nut & Lock Co
Spooner Zachery T. Hawthorn, farmer
Springer Cornelius H. 238 County, master mariner
Springer William, 134 Hillman, fish dealer
Stanton Albert G. 198 Grinnell, no occupation
Sterritt John H. 24 Purchase, tinsmith
Stetson George R. 55 Bedford, president Gas Co
Stone Francis H. 35 Arnold, master marine

Studley Alfred G. 661 County, bookkeeper
 Sturtevant Levi H. 36 North, carpenter
 Swift Anderson H. 74 South, carriage trimmer
 Swift Augustus, 75 North, iron foundry
 Swift Edward B. 38 Willis, florist
 Swift Ezra J. 18 Campbell, yeast dealer
 Swift George B. 83 Mill, clothing dealer
 Swift John F. 369 Purchase, accountant
 Swift Thatcher S. 118 So Sixth, livery stable

T

Taber Arthur K. 199 Maxfield, clerk
 Taber Edward C. e side Acushnet av, grocer
 Taber John H. 44 North, retired
 Taber Marcus W. 20 Ashland, no occupation
 Taber Robert W. 48 Fifth, bookseller
 Taylor George A. 189½ Grinnell, laborer
 Taylor John P. 63 Dartmouth, pharmacist
 Terry Elias, s side Hathaway road, lumber business
 Thompson James O. 80 Willis, express messenger
 Thompson Pardon G. 10 So. Sixth, merchant
 Tilden Andrew, Cottage and Bedford, confectioner
 Tilden Horace, 65 Fifth, confectioner
 Tillinghast Theodore F. 37 Eighth, no occupation
 Tilton Charles C. 396 Purchase, bookkeeper
 Tinkham Otis, Willow, cor. Cedar, shoemaker
 Toomey Dennis H. 12 Linden, clerk
 Tripp Alonzo B. 280 Acushnet av, carriage maker
 Tripp Augustus C. Ashland cor. Linden, grocer
 Tripp Charles M. 152 Cottage, merchant
 Tripp Christopher B. 12 Sherman, blacksmith
 Tripp Edwin I. Kempton and Florence, butcher
 Tripp Frank G. 82 State, laundry
 Tripp James H. 10 Allen, clerk
 Tripp Thomas B. 37 Allen, real estate agent
 Truman George H. Gammons lane, loom fixer
 Tucker William A. 6 Orchard, no occupation
 Tuell Frank P. P. 302 County, market

V

Vinal Charles H. 56 Foster, accountant
 Vinal Frederick H. 72 Bedford, mason

W

Wade Joseph B. 83 Willis, merchant
Wady George H. 39 Mill, florist
Waite Charles H. 15 Campbell, real estate dealer
Waite Stephen, 373 Purchase, real estate dealer
Warren Joseph C. 53 County, carpenter
Washburn Francis P. w side Tobey road, carpenter
Watkins George D. 113 Fourth, retired
Watson James B. 20 Allen, druggist
Watson Thomas, 949 Purchase, no occupation
Weaver Thomas H. 1125 Acushnet av, carpenter
Wentworth Frank W. 74 Walnut, merchant
Wentworth Hiram W. 74 Walnut, merchant
West William F. 102 Durfee, painter
Whalley Edmund J. 74 Washington, Pairpoint Mfg Co
Wheaton Ernest A. 164 Chestnut, bottler
Whiting Edward B. 17 Lincoln, merchant
Whittaker Edwin, 140 State, agent
Whittaker Henry, 643 Purchase, doffer
Wilbur Noah H. e side Tobey road, lumber dealer
Willis Henry P. 52 Seventh, clerk
Willis Rufus H. 369 Cottage, shoemaker
Willis William H. 66 Spring, retired
Williston Leander A. 72 South, carpenter
Wilson Alfred, 67 Fourth, real estate
Wing Charles F. 37 So. Sixth, merchant
Wing John, Mt. Pleasant, merchant
Wing John, 24 So. Sixth, merchant
Wing William R. 31 Walnut, merchant
Wood Edwin B. 283 County, engraver
Wood Charles H. 245 Purchase, janitor
Wood George, 49 So. Emerson, tinsmith
Wood Harry B. 67 Fifth, clerk
Wood James Augustus, 91 State, carriage maker
Wood Lemuel C. 15 Shawmut av, nurse
Wood William G. 80 Bedford
Wood William H. 546 County, merchant
Wordell Isaac, 285 Acushnet av, retired

Y

York George A. 70 Russell, insurance agent
Young James A. 63 No. Second, bookkeeper

CITY OF NEW BEDFORD.

ORDINANCES.

In the Year One Thousand Eight Hundred and Ninety-four.

AN ORDINANCE

RELATING TO PUBLIC BUILDINGS AND BUILDINGS IN THE
FIRE DISTRICTS OF THE CITY OF NEW BEDFORD.

*Be it ordained by the City Council of the City of New
Bedford as follows:—*

SECTION 1. The office of Superintendent of Public Buildings and Buildings in the Fire Districts of the City of New Bedford is hereby established. Upon the adoption of this ordinance, or as soon thereafter as may be, there shall be elected by the City Council in joint convention, by ballot, a Superintendent of Public Buildings and Buildings in the Fire Districts, who shall hold his office until the first day of May, 1895. In the month of April,

1895, and in April of every year thereafter, a Superintendent of Public Buildings and Buildings in the Fire Districts shall be elected by the City Council, by ballot, in joint convention, who shall hold his office for one year from the first day of May then ensuing, and until another is elected and qualified in his stead.

SECTION 2. It shall be the duty of said Superintendent to have the care of all public buildings of the city, not provided for by the Ordinances of said city, and to superintend all alterations, additions and repairs of public buildings hereafter to be erected, and all public buildings hereafter to be erected shall be constructed under his supervision and control.

SECTION 3. Said Superintendent shall supervise the construction of all buildings within the limits of the fire districts of the city, and shall see that all laws of the Commonwealth applicable thereto, and all ordinances of the city regulating the inspection, materials, construction, alteration and safe use of buildings and structures within the limits of said city are strictly observed.

SECTION 4. Said Superintendent shall be provided with a suitable office or offices by the City Council, at which he shall be in daily attendance at such hours as the Committee on Buildings in the Fire Districts may determine. He shall serve as clerk of said committee, attend all their meetings and perform all clerical duties and receive all applications, plans and specifications required by the ordinances to be filed with the Committee on Buildings in the Fire Districts, and properly file and preserve the same. He shall keep such other files and records, required by said committee, in such form as they shall determine, and he shall issue all permits authorized by said committee as required by an ordinance of the City of New Bedford adopted December 10, 1891.

ORDINANCES.

3

SECTION 5. He shall receive such compensation as the City Council may from time to time determine, provided that his salary shall not be reduced at any time to take effect during the continuance of the term for which he has been previously elected.

SECTION 6. The ordinance adopted September 14, 1893, entitled "An ordinance relating to the erection of buildings within the limits of the city of New Bedford, and defining the duties of the Inspector of Buildings with relation thereto," is hereby repealed.

IN BOARD OF ALDERMEN, Oct. 25, 1894.

Passed to be ordained.

STEPHEN A. BROWNELL, Mayor.

IN COMMON COUNCIL, 10 mo., 25, 1894.

Passed to be ordained.

JOHN H. BARROWS, President.

Approved Oct. 25, 1894.

STEPHEN A. BROWNELL, Mayor.

A true copy. Attest :

DANIEL B. LEONARD, City Clerk.

In the Year Eighteen Hundred and Ninety-four.

AN ORDINANCE

IN COMPLIANCE WITH THE PROVISIONS OF CHAP. 455 OF
THE ACTS OF 1894, CONCERNING CERTAIN PLUMB-
ING.

*Be it ordained by the City Council of the City of New
Bedford as follows:—*

SECTION 1. The following rules and regulations for the materials, construction, alteration and inspection of all pipes, tanks, faucets, valves and other fixtures by and through which waste water or sewage is used and carried are hereby established, viz.:—

One. Main Drains. Every building shall be separately and independently connected with a public or private sewer or cess-pool. The main drain, from a point five feet outside of the cellar wall, including the running trap, shall be of extra heavy cast-iron pipe, and beyond that point the best quality vitrified drain pipe, the same to be not less than five inches internal diameter. That portion of the house drain which is inside the walls, or under the building, shall have a fall of at least $\frac{1}{2}$ inch to the foot, and provision shall be made for its protection from breakage or deflection by the settling of the foundation where it passes through the wall. It shall be supported on piers securely fastened to the cellar wall or suspended

from the floor timbers with iron hangers. When impracticable to do this in the opinion of the plumbing inspector, it shall be laid in a trench beneath the basement or cellar floor, provided with movable covers and walled up of such a width as to admit of access to all joints. When connected with a public or private sewer or cesspool, the house drain shall be provided with an extra heavy cast-iron running trap, with an extra heavy brass clean-out, which shall be located beyond all house connections. If the trap be inside the cellar wall, the clean-out shall be on the house side of the trap. The size of the running trap must in all cases be five (5) inches or more internal diameter.

When the city drain pipe layer is ready to connect the vitrified pipe with the iron pipe the plumber shall have a length of iron pipe caulked into the running trap; he shall place the trap in position for the drain layer to make the cement connection.

All cast-iron soil pipe shall be laid by the plumber.

Two. Fresh Air Inlet. There shall be provided a fresh air inlet pipe of not less than four inches in diameter, on the house side of the running trap, which must terminate outside of the building, not less than one foot above the ground, and fitted with a wire screen at the open end. Its terminus shall be away from windows, doors, or cold air inlets to furnaces, and the construction of such fresh air inlets must be satisfactory to the Inspector of Plumbing.

Three. Soil Pipes. All pipes receiving the discharge from water closets shall be of iron, at least four inches internal diameter, and continued of undiminished size at least two feet above the roof, away from all windows, and left open at the top. A soil pipe receiving the discharge from three or more water closets shall be not less than five inches internal diameter.

In all cases the main soil or waste pipe from the running trap to a point two feet above the roof shall be four inches or more internal diameter.

Four. Branches. Branch lines of horizontal soil pipe, twelve feet or more in length, must be continued of undiminished size to the roof, and carried up at least four inches internal diameter through the roof and project at least two feet above it, and left open.

Five. Connections. All connections with horizontal pipes shall be made with $\frac{1}{8}$ bends and Y branches, and all changes in the direction of the waste pipe must be made with Y branches and fitted with clean-outs. Bends to be used only where it is impracticable to use Y branches for clean-outs. No trap shall be placed at the foot of a vertical soil pipe.

Six. Waste Pipes. Waste pipes from sinks, basins, wash tubs, shall be of lead or iron; those of less than two (2) inches internal diameter shall be of lead; those of two (2) inches or over shall be of iron, and where the iron pipe runs horizontally it shall not be less than three (3) inches internal diameter and be provided with a clean-out.

Where it runs vertically it shall be not less than two (2) inches internal diameter.

In every hotel, restaurant, boarding house or public cooking establishment there shall be a grease trap connected with the sink, which, with its location, shall be satisfactory to the Inspector of Plumbing.

Seven. Sink Traps. All sinks shall have not less than one and one-half ($1\frac{1}{2}$) inch lead traps with one and one-half ($1\frac{1}{2}$) inch lead waste and vent pipes. The following sizes of waste pipes and traps are allowed:—

Water closets, 4 inches; slop sinks, 3 inches; wash tubs, $1\frac{1}{2}$ inches; urinals, $1\frac{1}{2}$ inches; sinks, $1\frac{1}{2}$ inches; bath tubs, $1\frac{1}{2}$ inches; basins, $1\frac{1}{4}$ inches.

A waste pipe connecting two or more fixtures, such as sinks, bowls or baths, shall be of iron and not less than two inches internal diameter. Bath tubs and wash bowls shall be separately trapped. All trap and vent screws shall be placed satisfactorily to the Inspector of Plumbing.

Eight. Leaders. Rain water leaders entering a sewer or house drain shall be trapped, and such traps fitted with clean-outs.

Leaders placed inside of a building shall be of cast or galvanized wrought iron pipe of not less than three (3) inches internal diameter, with three (3) inch traps.

Nine. Weight of Lead Pipes. The size and weight of lead waste and vent pipes shall be as follows : —

1 $\frac{1}{4}$ inches in diameter, 2 $\frac{1}{2}$ lbs. per foot.

1 $\frac{1}{2}$ inches in diameter, 3 $\frac{1}{2}$ lbs. per foot.

2 inches in diameter, 5 lbs. per foot.

4 inches in diameter, 8 lbs. per foot.

All lead traps and bends shall be of the same weight per running foot as the lead pipe with which they are connected. Lead pipe used to connect fixtures with vertical soil or waste pipes, or to connect traps with vertical vent pipes, shall not be lighter than defined in the above table.

Ten. Water Closets. All water closets shall have direct communication with the outer air and shall be supplied with a sure flush tank, to hold not less than five gallons of water.

Long hopper porcelain bowls for water closets will not be allowed in new work.

When a water closet is to be placed in a house in which the drain is of cement or vitrified pipe, such drain shall be replaced by iron pipe and vented in the same manner as new work.

Every pipe connecting a water closet with the soil pipe must be trapped at its connection with the water closet.

Every waste pipe must be trapped as close to the fixture as practicable, and separately from any water closet.

No water closet shall be supplied directly from the house supply pipe, but shall be supplied from a special water tank or cistern used for no other purpose.

Eleven. Ventilation Pipes. Where there are seven or more fixtures connected to a ventilating pipe, said pipe shall be not less than three inches internal diameter; and where three or more water closets are so connected said pipe shall be not less than three inches internal diameter.

Vent pipes must have a continuous pitch to avoid collecting water by condensation.

No bowing of vent pipes shall be allowed. Vents from traps to water closets, bowls and other fixtures shall be carried to a level with the tops of all fixtures, and a trap screw of the same diameter as the vent must be wiped into it, and not more than six inches above the connection with the trap or lead band.

Horizontal vent pipes from water closet traps shall not be less than two inches internal diameter for thirty feet or less, and for more than thirty feet they shall not be less than three inches internal diameter.

Vent pipes shall connect with the ventilating stacks by the shortest route. All vent pipes at a point four feet from the roof shall be not less than four inches in diameter and extend of the same size to a point two feet or more above the roof, and not adjoining any window or other opening into the building

All pipes shall be made water-tight where they pass through the roof with sheet copper or sheet lead turned into the hub of iron pipe. Joint connections to be run with molten lead only.

Water closet vents from lead bends shall be placed on top of the bend as far as practicable. If connected on the side of a bend, they shall be placed so as to conform with the flow of water.

Twelve. Clean-outs. Clean-outs shall be placed in horizontal waste pipes close to Y branches and in such places as the Inspector of Plumbing may designate.

All clean-outs shall be approved by the Inspector of Plumbing. Off-sets in horizontal pipes must be made with $\frac{1}{8}$ or $\frac{1}{16}$ bends and piece of pipe.

All connections of lead waste and ventilating pipes shall be made with plumbers' wipe solder joints. No cup or wiped cup joints allowed on the sewer side of the trap.

Thirteen. Safe Wastes. All waste pipes from safes under fixtures shall be run separately to basement or cellar and left open; in no case shall they be connected with the soil pipe or any other waste pipe.

Fourteen. Refrigerator Wastes. No waste pipe from a refrigerator or other receptacle in which food or provisions are stored shall be connected with a drain, soil, or other waste pipe, but shall be separated therefrom by an open sink or tray, trapped.

Fifteen. Tank Overflow. All overflow pipes from tanks shall be left open and in sight. In no case shall they discharge into a soil or waste pipe.

Sixteen. Ventilation of Traps. All traps shall be supplied with a vent pipe not more than eight inches from the crown of trap.

Vent pipes from water closet traps shall be at least two inches internal diameter; other vent pipes shall be the same size as the waste pipe from the trap. All ventilation pipes from soil or waste pipes shall extend their whole length of undiminished size, separately or combined together, to the roof and carried up at least four inches internal diameter through the roof and at least two feet above it, and left open, or may be run into a soil pipe above all connections. In no case shall a soil, waste or ventilating pipe from a soil or waste pipe be connected

with a chimney. No brick, earthenware or sheet metal pipes shall be used for ventilation pipes from a soil or waste pipe.

Seventeen. Cast Iron Soil and Vent Pipes. All cast iron pipes must be free from holes and other defects; of a uniform thickness, and shall have the full weight of the following table for the corresponding diameters:—

Internal diameter.

2 inches, $5\frac{1}{2}$ pounds per foot.

3 inches, $9\frac{1}{2}$ pounds per foot.

4 inches, 13 pounds per foot.

5 inches, 17 pounds per foot.

6 inches, 20 pounds per foot.

All fittings used with such pipes shall be of the same diameter, weight and quality. All pipes before being connected shall be thoroughly coated inside and out with coal tar, pitch, or some equivalent substance satisfactory to the Inspector and applied hot by immersion.

Eighteen. Quality of Joints. Every joint in earthen pipe shall be made in hydraulic cement. The inside of the joints and of the pipe shall be cleaned out before connection is made with the house. Every joint in lead pipe shall be made with plumbers' wipe metal joints.

Every joint of an iron and lead pipe shall be made by an extra heavy brass ferrule of same size as lead pipe, set in the hub of the branch of the iron pipe, and caulked with lead; the lead pipe to be attached to the ferrule by a wiped solder joint. Every joint in a cast-iron bell and spigot pipe to be used with a packed oakum and molten lead well caulked at least $1\frac{1}{2}$ inches deep, and made water and air tight, and no joint shall be painted until tested by the Inspector of Plumbing. Where screw joints are used they shall be made up in red lead and made steam tight.

Nineteen. Surface Drainage. No opening into the house drain or sewer for the purpose of draining the

cellar of surface water will be allowed, except by permission of the Board of Health. The following regulations shall be made conditions of every such permit:—

A. A trap with a seal of not less than eight inches made with extra heavy fittings with a back-water valve and clean-out placed on the house side shall be used. This trap shall enter the main drain on the sewer side of the main house trap.

B. A leader of iron shall enter the trap with all joints connected with the leader inside the cellar, leaded and caulked, as provided in the case of iron soil pipes.

Twenty. Floor Plates. Floor plates shall be used with earthenware water closet traps, and the joints shall be secure and gas tight. Brass bolts and a brass flange not less than $\frac{1}{4}$ inch in thickness, soldered to lead bend, and fitted with a rubber gasket or white lead putty to insure a tight joint shall be used.

Twenty-one. Steam Exhaust No steam exhaust, blow off or drip pipe shall connect with any house drain, soil waste pipe or sewer. Blow off pipes may discharge into a tank or condenser, from which a suitable outlet to the house drain shall be provided.

Twenty-two. Miscellaneous. Vent pipes and fittings of wrought iron may be used, provided the same are galvanized.

No galvanized wrought iron vent pipes less than $1\frac{1}{2}$ inches in diameter shall be used.

Where waste pipes connect with a lead bend the connection must be made by a wiped Y joint, and connection must not be made with the heel of the bend. All T joints are prohibited.

Hereafter siphon water closets must be vented from the lead bend.

A house drain or private sewer passing under another house, or within four feet of a cellar wall of another house, shall be of extra heavy cast-iron soil pipe.

Where sink or waste pipes connect with wooden, tin or galvanized iron spouts outside of building, and the same are renewed partially or wholly, then iron or lead pipe must take the place of the old pipes. Sink or waste pipes must be placed inside of buildings.

The use of sanitary Ts will only be allowed in vertical pipes.

Double hubs are prohibited in all cast-iron soil or waste pipes.

No saddle hub will be allowed.

No fixture shall be trapped by having its outlet connected with the trap of another fixture.

A $\frac{3}{4}$ or full S four-inch trap must be used for brick sinks in cellars where connected with horizontal pipe.

Cast-iron water closet traps must be porcelain lined.

The waste pipe connecting with a bar shall have at least one trap for every five fixtures; such trap shall be placed within at least one foot of the last fixture and vented to main ventilating trap pipe or through the roof.

SECTION 2. No person shall construct, add to, or alter any portion of the drainage system of any building (except to repair leaks) until he has filed at the office of the Board of Health, upon blanks, in such form as the Board of Health shall furnish, a plan of the work to be performed. No person shall commence work on such drainage or plumbing without a permit from the Board of Health, who will within two days of the filing of such plans approve or reject the same.

After a plan has once been approved no alteration of the same will be allowed except by a permit from the Board of Health.

All plumbing work in new buildings or new work in old buildings shall be tested by the water test or such other methods as the Board of Health may direct.

SECTION 3. No person shall cover or conceal any part of the work until after it has been examined and approved by the Board of Health. The plumber shall send notice to the Board of Health when the work is sufficiently advanced for such inspection, and again when the work is completed. The plumber shall test all soil, waste drain and vent pipes in the presence of the Plumbing Inspector, by the water test, or by such other methods as may be approved by the Board of Health, the pressure to be applied as directed by the Inspector, the test to be made as follows: All connections must be made with the exception of the main trap clean-out for the testing plug. Place traps in their proper places, connect all back vent pipes to traps, caulk all ferrules in soil and waste pipes, place all iron hangers and other supports in their position.

None of the pipes shall be covered or used until they have stood the test to the satisfaction of the Inspector.

All defective joints and pipes shall be replaced by sound pipe.

SECTION 4. The provisions of regulation No. 17 of section 1 of this ordinance shall not apply to any work done, or materials used in any work done before the first day of May, 1895; nor to any materials used in work done under any contract executed before the first day of May, 1895.

SECTION 5. Nothing contained in this ordinance shall be construed to prevent the Board of Health from making such further rules and regulations in regard to plumbing or house drainage, hitherto authorized by law, which are not inconsistent herewith.

SECTION 6. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

SECTION 7. This ordinance shall take effect upon its passage.

IN COMMON COUNCIL, 12 mo., 13, 1894.

Passed to be ordained.

JOHN H. BARROWS, President.

IN BOARD OF ALDERMEN, Dec. 13, 1894.

Passed to be ordained.

STEPHEN A. BROWNELL, Mayor.

Approved Dec. 14, 1894.

STEPHEN A. BROWNELL, Mayor.

A true copy. Attest :

D. B. LEONARD, City Clerk.

In the Year One Thousand Eight Hundred and Ninety-five.

AN ORDINANCE

TO AMEND SECTION 5 OF CHAPTER XXIII OF THE CITY
ORDINANCES.

*Be it ordained by the City Council of the City of New
Bedford as follows:—*

SECTION 1. Section 5 of Chapter XXIII of the City Ordinances is hereby amended by striking out the words "in the following form" in the last line of said section and also the form prescribed in said section.

SECTION 2. This ordinance shall take effect upon its passage.

IN BOARD OF ALDERMEN, Jan. 24, 1895.

Passed to be ordained.

DAVID L. PARKER, Mayor.

IN COMMON COUNCIL, 1 mo., 24, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR.,
President Common Council.

Approved Jan. 25, 1895.

DAVID L. PARKER, Mayor.

A true copy. Attest:

D. B. LEONARD, City Clerk.

CITY OF NEW BEDFORD,

In the Year Eighteen Hundred and Ninety-five.

AN ORDINANCE

CHANGING THE NAME OF "CITY LAND SURVEYOR" TO
"CITY ENGINEER."

*Be it Ordained by the City Council of the City of New
Bedford, as follows:—*

SECTION 1. The name of the office of "City Land Surveyor" is hereby changed to "City Engineer," and all the duties heretofore devolving upon the "City Land Surveyor" shall henceforth be performed by the "City Engineer."

SECTION 2. The change of name of the office, provided by this ordinance, shall not affect any act done, or any right accruing or accrued or established, and any person who, at the time this ordinance takes effect shall hold the office of City Land Surveyor, shall continue to hold office, but under the name of City Engineer, for the term for which he was elected, according to the ordinances in force respecting the office of City Land Surveyor.

SECTION 3. This ordinance shall take effect upon its passage.

IN BOARD OF ALDERMEN, March 14, 1895.

Passed to be ordained.

DAVID L. PARKER, Mayor.

IN COMMON COUNCIL, 3 mo., 14, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR., President.

Approved March 15, 1895.

DAVID L. PARKER, Mayor.

A true copy. Attest:

D. B. LEONARD, City Clerk.

In the Year Eighteen Hundred and Ninety-five.

AN ORDINANCE

AMENDING AN ORDINANCE RELATING TO CEMETERIES.
PASSED NOVEMBER 9, 1893.

Be it Ordained by the City Council of the City of New Bedford as follows:—

SECT. 1. Upon the passage of this ordinance there shall be elected by the City Council in convention three persons to constitute a Cemetery Board; one to hold office until the first day of May in the year eighteen hundred ninety-six, one until the first day of May in the year eighteen hundred ninety-seven, and one until the first day of May in the year eighteen hundred ninety-eight, and until their successors are elected and qualified; and thereafter in the month of April in each year the City Council shall in like manner elect one member of said Board to serve for a term of three years from the first day of May in the year in which he shall be elected, and until his successor is elected and qualified; but the Mayor, with the consent of the City Council in convention, may at any time remove any of said Board. Whenever any vacancy shall occur in said Board by death, resignation or otherwise, said vacancy shall be filled by election in the manner aforesaid of another person, who shall hold office for the residue of the unexpired term.

SECT. 2. Within ten days from the first election and qualification of the members of said Board under this ordinance, and thereafter annually on the first Monday of

May, said Board shall organize by the choice of a chairman and also a secretary, and may make such rules and regulations relating to their organization and meetings, not inconsistent with law and ordinance, as they deem advisable.

SECT. 3. The several cemeteries belonging to the city shall be under the sole care, superintendence and management of said Cemetery Board; they shall set apart and appropriate a suitable portion of said cemeteries as a public burial place for the use of the inhabitants of the city, free of charge; they shall lay out said cemeteries in suitable lots or other sub-divisions for burials, with necessary paths and avenues, and shall at all times provide a sufficient number of such lots of various classes and prices in a condition for immediate use and sale; they shall keep said cemeteries in good order and repair, and may plant and embellish the same with trees, shrubs and flowers, and other rural ornaments.

Nothing contained in this ordinance, however, shall be deemed to authorize said Board to incur any liability in the name of the city for an amount greater than that appropriated by the City Council for cemeteries.

SECT. 4. Said Board shall, subject to the approval of the City Council, make and publish such rules and regulations in relation to the use and management of said cemeteries, not inconsistent with law or ordinance, as they deem advisable.

SECT. 5. Said Board may negotiate sales, upon such terms and to such persons as it deems proper, of exclusive rights of burial, in any lot not already sold or occupied in any of the public cemeteries, provided no such right be sold in more than one lot to any one person. And said Board shall, upon receipt of an order from the City Treasurer, reciting that he has received payment therefor, grant to such persons exclusive rights of burial in such

lots, by an instrument duly executed by its chairman and secretary, upon such terms and conditions as the City Council may from time to time prescribe, and shall, before delivery thereof, cause said instrument to be recorded by its secretary in books to be kept in the office of the Cemetery Board.

The certificate to be given to persons who purchase the right of burial in any lot in said cemeteries shall be in the following form:—

City of New Bedford.
CEMETERY DEPARTMENT.

No.

Office of the Cemetery Board.

189

This certifies that.....
of.....having paid into the treasury of
said city the sum of.....dollars, the receipt of
which has been acknowledged by the City Treasurer, is
entitled to the sole and exclusive use, as a place of burial of
the human dead, of a lot in the.....
Cemetery, owned by and situated in said city, and num-
bered No., Section, on the plan of said
cemetery, deposited in the office of said Cemetery Board
of said city of New Bedford.

The use and occupancy of said lot by the said
....., h.....heirs, devisees, or assigns,
to be subject at all times to all regulations which have
been or may be made by authority of said city in relation
to said cemetery. The interest hereby conveyed is in-
divisible; and if there should be more than one devisee or
heir-at-law, claiming right under this certificate, the
Cemetery Board of the city of New Bedford for the time
being shall designate which of said devisees, heirs-at-law,
or assignees shall exercise or enjoy such right, which
designation shall remain in force until by death, removal,

or other sufficient cause another designation shall become necessary, it being understood that in making such designation the said Cemetery Board shall, as far as they conveniently may, give preference to males over females, and to proximity of blood and priority of ages, having due regard, however, to proximity of residence.

No assignment of the right under this certificate shall be valid unless the same is approved by the Cemetery Board and duly recorded.

In testimony whereof the said city of New Bedford has caused its corporate name to be subscribed by

.....Chairman, } of the Cemetery
and
.....Secretary. } Board,

on the day and year above written.

Recorded in the office of the Cemetery Board, book
page 189..... Secretary.

SECT. 6. The secretary of said Board shall keep suitable books, in which he shall enter full records of all lots in every public cemetery, giving the name and address of the persons entitled to the right of burial in said lots, and of all transfers of the same, and also the place of every grave in said cemetery, and the name of the person buried in said grave, and shall cause to be prepared, and from time to time corrected, an accurate plan or plans of every public cemetery, showing every lot and every grave therein, to be used in connection with said records. The secretary shall also keep records of the transactions of said Board in relation to the sale and conveyance of burial rights, and all other transactions of said Board.

SECT. 7. Said Board shall give to any person making a deposit satisfactory in amount to said Board, under the terms of section 17 of chapter 82 of the Public Statutes of the Commonwealth, or any acts in amendment thereof, upon receipt of an order from the City Treasurer, reciting

that he has received such deposit, an agreement or obligation of the city in the following form:—

City of New Bedford, A. D. 189.....

This is to certify that has this day deposited with the treasurer of the city of New Bedford the sum of dollars, and said city hereby agrees to carefully invest said sum and apply the net income thereof for the preservation and care of lot number on the plan of the cemetery.

Cemetery Board,

by

The treasurer shall deposit all sums received by him under the provisions of this section in some savings bank or institution for savings in this Commonwealth, in such manner as shall show the name of the person from whom and the lot for which the same was received. He shall keep books, in which he shall enter full details of such investments. He shall collect the income of said investments and properly credit the same on his books. He shall semi-annually on the first day of May and on the first day of November transmit to said Cemetery Board a detailed statement of the amounts standing to the credit of each lot for which said deposits have been made under the provisions of this section.

It shall be the duty of said Board to apply the income of said investments for the preservation and care of the lot for which said deposits have been made, and also all sums held by the city and otherwise applicable to the care of particular lots in both public and private cemeteries.

SECT. 8. Said Cemetery Board shall make report to the City Council in January of each year of the condition of the cemeteries under its care, with such suggestions as to the needs of the department as they may deem pertinent and proper. Said report shall also contain a

statement in detail of all receipts and expenditures of said department for the preceding year.

SECT. 9. Annually in the month of May said Board shall nominate, subject to confirmation by the City Council in convention, a Superintendent of Cemeteries. Said superintendent shall hold his office for one year, or until his successor is chosen, subject to removal by said Board. Whenever any vacancy shall occur in the office of said superintendent by death, resignation, or otherwise, said vacancy shall be filled by nomination and confirmation in the manner aforesaid, of another person, who shall hold office for the residue of the unexpired term. The compensation of such superintendent shall be fixed by the City Council. Said superintendent shall devote his whole time to the care of the cemeteries, and shall in all matters act under the supervision and direction of said Board.

Said superintendent shall keep accurate books of account in such manner as said Board shall direct, and shall deposit at least as often as once each week with the City Treasurer all moneys received by him.

SECT. 10. All accounts and claims against the city for expenditures for cemeteries shall be examined by the Superintendent of Cemeteries, and approved by said Cemetery Board.

The proceeds of all sales of burial rights received by the City Treasurer shall be kept separate and apart from all other funds and be appropriated to reimburse the city for the cost of land purchased or acquired by the city for cemetery purposes, or of the improvements and embellishments thereof.

All moneys received by the City Treasurer from the Superintendent of Cemeteries, or from individuals for work and materials furnished by the Cemetery Board, together with all amounts charged for the care of lots under the provisions of section 7 of this ordinance, as aforesaid, shall be credited to the account of cemeteries.

SECT. 11. No grave shall be opened in any public cemetery except under the direction of the Cemetery Board, and application must be made to said Board in all cases where interments are to be made therein; and no grave shall be opened in any portion of a public cemetery not divided into lots, except at such places as said Board shall designate; and said Board shall make no reservation of any part thereof with a view to the prospective occupancy thereof.

SECT. 12. No person shall erect any gravestone, monument, or structure of any kind, or plant any trees, or shrubs, or flowers in any public cemetery of the city of New Bedford unless it be with the sanction, consent and approval of said Cemetery Board.

SECT. 13. Annually in the month of January said Board shall prepare and transmit to the City Auditor a detailed estimate of the amounts required to be appropriated for cemeteries for the current year, together with the estimates of the amounts required to be expended under the provisions of section 7 of this ordinance, and also estimates of the amounts of probable receipts in connection with the cemeteries.

SECT. 14. Any violation of any of the provisions of this ordinance shall be punished by a fine not exceeding twenty dollars for each offence.

SECT. 15. Chapter XIX of the ordinances, and all ordinances and parts of ordinances inconsistent herewith are hereby repealed.

SECT. 16. This ordinance shall take effect upon its passage.

IN BOARD OF ALDERMEN, April 11, 1895.

Passed to be ordained.

DAVID L. PARKER, Mayor.

IN COMMON COUNCIL, 4 mo., 11, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR.,
President of the Common Council.

Approved April 12, 1895.

DAVID L. PARKER, Mayor.

A true copy. Attest :

D. B. LEONARD, City Clerk.

AN ORDINANCE

TO AMEND AN ORDINANCE.

Be it ordained by the City Council of the City of New Bedford as follows:—

SECT. 1. Section 4 of chapter 6 of the ordinances of the city of New Bedford is hereby amended by adding after the word "Mayor" in the last line thereof the following words: "and by the chairman of the committee on claims" so that the same shall read as follows: Whenever in the opinion of the Mayor such an emergency arises as to require that additional assistance should be furnished in the law department, the Mayor may, with the approval of the committee on claims, provide such assistance for the time being as he may deem expedient; and the bill for such assistance shall be certified and approved by the Mayor and by the chairman of the committee on claims.

SECT. 2. This ordinance shall take effect upon its passage.

IN COMMON COUNCIL, 4 mo., 25, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR., President.

IN BOARD OF ALDERMEN, April 25, 1895.

Passed to be ordained.

D. L. PARKER, Mayor.

Approved April 27, 1895.

D. L. PARKER, Mayor.

A true copy. Attest:

D. B. LEONARD, City Clerk.

In the Year One Thousand Eight Hundred and Ninety-five.

AN ORDINANCE

RELATING TO BUILDINGS IN THE FIRE DISTRICT.

Be it Ordained by the City Council of the City of New Bedford as follows:—

SECT 1. There shall be appointed at the commencement of each municipal year a joint standing committee to consist of two Aldermen and three members of the Common Council, to be called the Committee on Buildings in the Fire Districts, and said committee shall hold regular meetings as often as once a month.

SECT. 2. For the purpose of securing the city of New Bedford from damage by fire two certain fire limits are hereby established, and the same are particularly described as follows:—

First:—

Union street, between Second and Eighth streets
William street, between Second and Sixth streets.
Elm street, between Acushnet avenue and Sixth street.
Purchase street, between Union and North streets.
Pleasant street, between Union and Middle streets.
Sixth street, between Elm and Spring streets.
Fifth street, between Union and Spring streets.
Fourth street, between Union and School streets.
Acushnet avenue, between Middle and Spring streets.
Market street, between Pleasant and Sixth streets.

Dover street, between Second street and Acushnet avenue.

Sears court, between Purchase and Pleasant streets.

Hall's court and Mechanics lane, between Purchase and Sixth streets.

The territory including all building lots bounding on the above described portions of the above named streets, courts and lanes shall be known as the first fire limits.

No person shall erect or cause to be erected any building, or make or cause to be made any addition to any building already erected or in process of erection within the first fire limits hereby established, unless the same be constructed of brick, stone or iron, in the manner and of the materials, dimensions, and upon the conditions herein set forth; and unless there shall have first been filed with the Inspector of Buildings, when required by him a duplicate copy of the plans and specifications under and by which the building or buildings or additions thereto are to be constructed, and unless such plans and specifications have the approval of the committee on buildings in the fire districts and Inspector of Buildings.

Within the first fire limits:—

All one-story buildings shall be constructed of brick or stone walls, which shall not be less than 8 inches solid thickness.

All two-story buildings shall be constructed of brick or stone walls, which shall not be less than 12 inches solid thickness for first story and 8 inches solid thickness for second story.

All three-story buildings shall be constructed of brick or stone walls, which shall not be less than 16 inches solid thickness for the first story, 12 inches solid thickness for the second story, and 8 inches solid thickness for the third story.

All four-story buildings shall be constructed of brick

or stone walls, which shall not be less than 20 inches solid thickness for the first story, 16 inches solid thickness for the second story, 12 inches solid thickness for the third story, and 8 inches solid thickness for the fourth story.

All five-story buildings shall be of brick or stone walls, which shall not be less than 24 inches solid thickness for the first story, 20 inches solid thickness for the second story, 16 inches solid thickness for the third story, 12 inches solid thickness for the fourth story, and 8 inches solid thickness for the fifth story.

All six-story buildings shall be of solid brick or stone walls, which shall not be less than 28 inches thick for the first story, 24 inches thick for the second story, 20 inches thick for the third story, 16 inches thick for the fourth story, 12 inches thick for the fifth story, and 8 inches thick for the sixth story.

All partition walls between adjoining buildings shall be the same thickness as outside walls for each story, as walls of buildings are required to be in the foregoing provisions, and shall extend at least two feet above the roofs of said adjoining buildings.

All buildings designed for use as stores shall have brick or stone partition walls to extend from the bottom of the cellar to the top of the second floor timbers.

All main partitions in school houses shall be constructed of brick or stone of the same thickness in each story, as is required herein with reference to thickness of walls of buildings in corresponding stories.

The roofs of all buildings erected or repaired within said first fire limits (except in cases of what is commonly called and known as patching) shall be covered with fire proof material, which shall consist of copper, tin, tar and gravel, asbestos felting, slate, metallic shingles, terra cotta tiling or corrugated sheet iron.

All cornices and gutters shall be constructed of metal, and in no case shall wooden shingles or wooden cornices or gutters be placed upon any buildings erected or repaired within said limits.

All bay windows and other projections erected, constructed or repaired within said limits shall be covered with sheet metal.

No person shall erect or cause to be erected, or make or cause to be made any addition to any buildings erected or in process of erection within said limits unless he shall upon written application first obtain permission so to do, in accordance with the provisions of this ordinance.

Second:—

The second fire limits shall comprise all the territory inside the city limits not included in the first fire limits.

No person shall erect or cause to be erected any buildings, or make or cause to be made any additions to any building already erected or in process of construction within the said second fire limit, unless he shall upon written application first obtain permission so to do, in accordance with the provisions of this ordinance; and unless there shall have first been filed with the Inspector of Buildings, where required by him, a duplicate copy of the plans and specifications under and by which the building or buildings or additions thereto are to be constructed, and unless such plans and specifications have the approval of the committee on buildings in the fire districts and the Inspector of Buildings.

All buildings erected and all additions to buildings made within the second fire limits shall be constructed of such materials and in such manner as the committee on buildings in the fire districts shall direct.

All repairs to stores, business blocks, and all other buildings in the second fire limits that may be hereafter damaged by fire, shall be under the direction and control of the committee on buildings in the fire

districts, and shall be made only on permit granted by said committee.

SECTION 3. All applications to build, alter, add to, or move any building within said first fire limit, and all applications to build, alter, add to or enlarge any building already constructed or in process of construction within the second fire limit, and all applications to move any building within said first and second fire limits shall be presented to the Inspector of Buildings, who shall endorse thereon his approval or disapproval of said application; and such application shall thereupon be presented to the committee on buildings in the fire districts, which committee by a majority vote may grant such application upon such terms, conditions and regulations as they deem proper.

Provided, however, that no buildings within the first fire limits shall be constructed of material other than brick, stone, or iron.

SECT. 4. The chimneys to all buildings hereafter erected within the city of New Bedford shall be plastered upon their inside surfaces throughout their entire length, and upon their outside surfaces from the first floor to under side of roof boarding.

SECT. 5. Any person violating the provisions of this ordinance shall be liable to a penalty not exceeding one hundred dollars for each offense.

SECT. 6. Chapters XII and L of the ordinances and an ordinance passed by the City Council and approved by the Mayor July 3rd, 1891, entitled "An Ordinance Relating to Buildings in the Fire Districts," and an ordinance passed by the City Council December 10th, 1891, entitled "An Ordinance Relating to Buildings in the Fire Districts," and all ordinances and parts of ordinances inconsistent herewith are hereby repealed.

SECT 7. This ordinance shall take effect upon its passage.

IN COMMON COUNCIL, June 27, 1895.

Passed to be ordained.

OLIVER PRESCOTT, JR., President.

IN BOARD OF ALDERMEN, June 27, 1895.

Passed to be ordained.

D. L. PARKER, Mayor.

Approved June 28, 1895.

D. L. PARKER, Mayor.

A true copy. Attest :

D. B. LEONARD, City Clerk.

1894—CITY DOCUMENT No. 18.

VALEDICTORY ADDRESS

OF THE

HON. STEPHEN A. BROWNELL,

MAYOR,

DELIVERED ON THE EVENING OF DECEMBER 27, 1894,

BEFORE THE

CITY COUNCIL.

NEW BEDFORD:

E. ANTHONY & SONS, Incorp., CITY PRINTERS.

1895.

CITY OF NEW BEDFORD,

December 27, 1894.

Ordered printed in the City Documents, in concurrence.

D. B. LEONARD, City Clerk

VALEDICTORY ADDRESS.

NEW BEDFORD, Mass., December 27, 1894.

Members of the City Government.

GENTLEMEN :—In addressing these remarks to you at this, our last regular meeting, I am simply continuing a custom which has been adopted by previous administrations, and which has its chief value in the fact that it may present for the consideration of the people, in concise form, some of the important accomplishments of the city government during the present year, and also call to the attention of the incoming administration some suggestions which have been developed by the year's experience, and which may be accepted as recommendations which a 12 months' trial has educated us to believe to be worthy of consideration.

Our administration, from necessity, has been one of economy and retrenchment, particularly as to the policy of promoting new enterprises, for while lots have been provided, the much needed schoolhouses have not been erected.

We have completed public buildings already commenced, beyond which we have confined our expenditures to needed repairs. The same policy has been applied to our streets and all other important city departments. We have, however, made liberal expenditures necessary to get the new plotting system into practical operation, so that the Board of Assessors could utilize it largely this year.

This administration will be distinguished for improving the city's credit, and for reversing the policy which has

gradually reduced the city's bonding capacity, and instead has this year by wise financial management increased it over \$100,000, and further, by the action of the assessors, the increase will reach \$304,000.

This gives the city a financial standing which will permit the incoming administration to engage in numerous needed improvements,—such as, first, new schoolhouse; second, new City hall; third, new public library; and also street and sewer improvements, especially the extension of one or two trunk sewers, all of which are needed, and if conditions will not warrant the whole in one year, wise discretion must determine which can be delayed with the least disadvantage.

Another condition of advantage next year over this, will be the material in the city yards, which will be largely in excess of January 1, 1894, while the road building machinery will be increased if the contracts under consideration are accepted and executed.

The city has petitioned for the appointment of a commission in accordance with law, which will be vested with authority to abolish our dangerous grade crossings, including that at Bridge square in connection with the construction of the proposed new bridge to Fairhaven, and no doubt this vexed question is now on the right road to amicable adjustment and final solution.

The necessary steps have been cautiously taken to prepare for the work of establishing a further water supply, and progress has been as fast as the importance and magnitude of the enterprise would warrant. In this no serious mistakes have been made. The city has an exceptionally intelligent board of officers in this department, and I feel that the city's interests have been and will be wisely protected.

The Board of Public Works is composed of honest and experienced business men, who have devoted much time

and thought to the problem of how to give the city the most good with the least expenditure of money, the past year.

My associations with the board, and also as Park Commissioner, have been pleasant; in fact my relations with all the boards and departments have been equally pleasant, and I have nothing but commendation for the unselfish interest displayed in all their public work and action, and their motives have always been to subserve their city's interest without fee or self-aggrandizement.

The Fire department, as judged by results, is second to none; the new house on Acushnet avenue has been completed and equipped, which well provides protection for that section of the city. The next demand will probably come from the west or southwest portion of the city, and when this section of the city shall have been provided for, and perhaps one or two chemical engines procured, it would seem that nothing further would be required in the way of new stations for many years to come.

The Police department has rendered more efficient work the past year than any preceding year. The records of the department and also the observations of unprejudiced citizens bear out this statement. This result is partially due to the increase of the force made last year. The fact remains, however, that the force has been numerically too small to afford adequate protection to our whole city. The increase in population has extended over a large territory, and in comparison has far exceeded the increase in the number of policemen. The additions which have been made to-night will still further increase the efficiency of the force, and afford much needed police protection in the new districts of our city where the people pay taxes and ordinarily receive much less in return than the older settled portions.

An expenditure of about \$3,000 has been made in increasing the accommodation at the district court room, a large portion of which has inured to the benefit of the Police department, furnishing separate apartments for the chief, captains and inspectors. By an agreement with the County Commissioners, the annual rental paid by the county for the use of the court room will more than compensate the expenditure.

The Poor department is in able hands, and I have no criticism or recommendation to suggest, except to commend investigation; no case can be too well understood; suffering too frequently applies to those who are modest in their applications, while abuse of charity comes from those who make loud pretensions.

The street light department has been well and economically managed during the year. I hope the time is not far distant when less dependence will be made upon the moon, and when the settled portion of the city will be wholly lighted by electricity, while the outlying districts should have an ample number of naphtha lamps. It is bad economy to place them too far apart, and the government should not begrudge those districts such facilities as can be provided, as such taxpayers contribute to the expense of many conveniences of which they do not receive immediate benefit or advantage.

I would here suggest a careful consideration of the economy and advisability of establishing a municipal plant for lighting streets and public buildings. Much information is now obtainable which would lend intelligence to future action.

I suggest that a water main be laid to the city almshouse, not only for domestic use and use in the heating apparatus, but particularly as a protection in case of fire.

It was found necessary to place a new boiler at the almshouse this year, and considerable money has been ex-

pended in repairing the heating apparatus, including a boiler house, etc., and the city farm and almshouse are to-day in better condition than they have been in the past 20 years.

It is conceded by all who have any experience that the water from the city farm well is very destructive to piping and boilers, so that this feature adds an additional reason for the introduction of city water to the city farm.

My year's experience as Mayor, together with my long connection with the city government, leads me to recommend certain changes in the city charter, so as to provide a different and more modern form of constituting the city government. If any changes should be made it will be a particularly opportune time to do so in 1895. This will be the year when the wards can be legally changed, and any one at all familiar with the present overgrown conditions of wards One and Six is fully aware of the necessity of increasing the number and changing the ward lines.

First—What I deem important is that the Mayor should be elected for a term of not less than two years. I believe that the city's welfare and interest would be better taken care of in this way. This is so plain to any man of business and experience that no argument need be made at length by me.

Second—I would recommend that the City Council be abolished, and in its stead a city government be elected consisting of one branch only, and constituted by electing two or three residents of each ward who may be elected by wards, or what I believe to be better, to have one or more from each ward elected at large—*i. e.*, by a city vote.

Then I would have the term of office fixed like the selectmen of towns, viz.: one, two and three years, so that after the first year only one from each ward would be

annually elected. I would suggest that a compensation commensurate with their duties be established. Waltham, Mass., and other cities have similar forms of government, which is found in practice to be superior to our present government and worthy of our imitation.

If experience is desirable in all kinds of business, and it is demonstrated to be of advantage in every town government in the State, why should cities with increased responsibilities, with greater expenditure of money involved than any of the towns, not have the advantage of knowledge and experience in their public servants? It would appear that there remains no ground of intelligent objection.

I say this, not expecting to be a candidate for municipal office again, but as the conclusion I have come to from a long experience, with nothing in view but the best interests of my city and fellow citizens, copartners or fellow members of this large corporation. Care should always be taken to elect none but efficient servants, and none should be long retained who prove dishonest or inefficient. Some way should be and is provided for dispensing with dishonest officials.

At this point I would suggest that if it is determined that the Board of Public Works should be elected by the people instead of by appointment as at present, that in case my suggestion for a one-branch continuous term government is adopted it would be well to consider the advisability of placing the control of streets and sewers in the government instead of continuing it in a board as now, for then you would have the element of continued experience in the government so necessary to the control of streets, while you would have also what has been advocated, viz. : its members elected by popular vote.

I would suggest and recommend also that the Park Commissioners be a separate board ; so far as my knowl-

edge goes, this is the case in other cities. As to the park system, the initiatory work of selecting locations was of a nature that it does not require so much time and thought, in fact all work up to this time has been well performed, but it appears to me that from now forward the park department should be distinctively by itself, and that there is no more reason for continuing the management under the Board of Public Works than there would be of uniting the Fire department with the Board of Health or Poor department.

I hope, therefore, that the new city government will consider this proposition in connection with the other charter amendments I have suggested and called attention to in this valedictory address.

I am a firm believer in public parks and park ways in and for New Bedford. It is the basest falsehood ever attempted for political or any other reason, that I promoted public parks for selfish reasons and purposes. Boston, ten times the size of New Bedford, has expended over twelve millions on parks, besides what the State has done and will do through the Metropolitan system.

When New Bedford has invested one-third of a proportionate sum, I think she will have proportionally a much better park system than Boston, simply because locations cost less by securing them before they become more valuable.

If the Park Commissioners secure what they ask for, viz.: authority to issue \$200,000 of bonds, they will be able in the next six years to provide a system of parks and connecting avenues excelled by no city of its size in the United States, at less cost in proportion than any other city.

I also believe that it will not only prove an economical and profitable investment, but that the next generation (which will largely participate in paying the bonds, and

will also more effectually reap the benefit of the work of this generation) will thank their forefathers for their wisdom and wise action.

I believe it can be demonstrated to be a wise expenditure of money solely as an investment, while as a means of beautifying the city and promoting life, health and happiness, its value will become beyond computation, and again as a means of education its worth is not comprehended.

In carrying out the recommendations of the commissioners, Kempton street, in which the electric car tracks leave only one carriage way, which in a leading great thoroughfare is so narrow that it is not only discreditable and inconvenient, but criminally unsafe for travel, would be widened and made a permanent credit and convenience to the city; and the cost thereof would be spread over a period of 50 years for payment as being paid from the park funds as a park avenue. Why should not such a permanent and needed improvement be provided for in this way? Rockdale avenue, our grandest drive, from whose heights the eye extends over the whole city, affording an enchanting view, would be provided for in a like manner.

There should be no time lost in completing these locations and widening these avenues. Delay means greater cost increased by each additional year, as new buildings are erected and values increase.

The improvement of the parks may be very slow and no loss or harm will result on account of increased values. Go slow as you may in permanent improvement, but in original complete location no time should be wasted in unnecessary delay.

I wish again to place myself on record as a friend of public parks and avenues. I go no further than my associates who have already outlined what in their judgment is proper and necessary addition for ample and adequate area

for New Bedford's present and future needs. Fifty years hence I hope to have my record compared with any one who is now in opposition to this advancement of New Bedford's welfare and interest in this direction, and though we may not be here to listen to the verdict, our children will be here to applaud and join in the commendation.

But, gentlemen, it is not necessary to wait 50 years. The people are becoming educated to appreciate the value of public parks, and even today the majority favors them and their number increases as the agitation continues. I ask for no more pleasant duty than to stand before a New Bedford audience and argue in joint debate, or otherwise, for the present report of the Parks Commission and its recommendations, which has been referred to the next city government, as this government cannot petition a legislature not yet inaugurated.

It is with some degree of pride that I call your attention to two or three important precedents which this administration has established during the year.

First—That there is to-day in New Bedford a third printing office amply equipped and equally as able to do the city printing as either of the other two which have alternately received the contracts in previous years. To accomplish this the administration has received the full strength of their revenge and enmity as daily displayed by the press representing the two offices which have always claimed the preference on the ground that no other city printing office was competent to perform the work.

Second—That the New Bedford Safe Deposit and Trust bank is capable of receiving a larger portion of the city's deposit and allowing 2 per cent interest therefor, when no other city bank would pay a farthing of interest for said deposit. It also has been demonstrated that said bank can furnish the city pay roll in convenient denomina-

tions of money, and also furnish the city temporary loans needed at a lower rate of interest than older institutions proposed.

Third — It has been also demonstrated that it is possible to run various departments of the city for a year in the midst of business depression without decreasing the city's credit and legal bonding capacity.

Gentlemen, it is pleasant to review the record of our administration. I have neglected to refer to some important achievements and many minor ones. I do not desire to recall all the detail of labor which has been given to the city management the past year. The government has been industrious, thoughtful, and often heroic in its action, in order to protect the interests of the city.

You have given me loyal support, wise counsel, and to the city unselfish and efficient work. I shall ever remember the associations of 1894 with pride, pleasure and satisfaction. I have always been courteously treated by all the clerks in the various departments, which I am now glad to publicly acknowledge.

I wish to apply all that I have said to the City Council with equal force to every city official. They are all efficient, experienced gentlemen. They have always willingly and loyally advised and assisted me and worked together harmoniously for the best interests of our city, and collectively I ask all members of the government in every department to accept my grateful thanks in token of my warm appreciation of their loyal support, valuable assistance and for our harmonious and pleasant associations.





